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ABSTRACT

This collection includes twenty-one papers, a book review, and a bibliography of English-Polish contrastive studies in Poland, and is the fifth volume resulting from the Polish-English Contrastive Project. The overall purpose of the project is to prepare a Polish-English contnastive grammar and to develop pedagogical materials. Topics covered in the papers include the role of translation in contrastive studies, stress, word order, and phonological rules in English and Polish, contrastive lexicology and word formation, active and passive sentences and subject-verb concord in the two languages, the semantics of questions and answers, kinship terms, and error analysis as it relates to interference in language learning. (CLK)

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THE POLISH-ENGLISH CONTRASTIVE PROJECT

PAPERS AND STUDIES IN CONTRASTIVE LINGUISTICS

VOLUME FIVE

Editor: JACEK FISIAK
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PAPERS AND STUDIES

THE MEASUREMENT OF CONTRAST IN CONTRASTIVE LINGUISTICS[1]

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1. INTRODUCTION

Over the last six years or so the dominant theme in Contrastive Linguistics (or CL) has been a crisis of identity. In spite of a steadily growing volume of research in the field of CL, this crisis has not been resolved. Nor has the increasing formalization of the insights of CL, which has itself long been an informal part of language teaching and translation theory, satisfied a number of critics that CL is either formalized, formalizable, or worthy formalization. And CL still awaits recognition as a valid branch of general linguistics, set somewhere between theoretical linguistics, translation theory and applied linguistics.

The fairest statement of these doubts is that of Hamp (1968:137) "(1) Does the notion 'contrastive grammar' have any useful or plausible significance, or is it really just an empty term? (2) Does the sort of activity or statement that has been called 'contrastive grammar' lead to what people concerned with questions of language teaching have claimed for? If so, how fast and how directly?". These questions have not yet been satisfactorily answered. Applied CL has concerned itself actively with error-prediction, and, more profitably, error-analysis. We now know much more about the kinds and degree of differences between languages on a number of linguistic levels from phonetics to stylistics and even linguistic etiquette. All this represents a valuable achievement, which has contributed not a little to the general methodology and theory of language teaching. In non-applied CL, however, the issue is still in doubt, in spite of a considerable amount of research (notably in the various contrastive projects now in progress[2]). There are several reasons why this work has failed so far to convince the international academic forum that CL is a *bona fide* branch of general linguistics. One cause of confusion has been the often haphazard way in which mainstream TG has used contrastive data to support various claims about the nature and content of deep structures. This has had the effect of suggesting that contrastive techniques in general linguistic theory are simply part of an overall procedure for testing the validity of linguistic constructs. A more important reason, however, is the lack of a clear understanding of the relation of CL to a total linguistic model. For example, we know quite a lot about the phonetic and grammatical differences between a small number of languages; and something, though rather less, about these languages' underlying grammatical structures. This has allowed us to formulate partial typologies of the languages involved. But it has not resulted in a systematic typology of the mechanisms of contrast themselves, except in isolated and generally unrelated cases. This difficulty, of course, is aggravated by the multiplicity of analytical models. But since TG is now so widely pursued in CL, it is worthwhile considering the mutual relevance of TG and CL, and the ways in which TG may provide a framework for a more rigorous comparison metric for the statements of CL. As Stockwell (1968:25) remarks,

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[1] An earlier version of this paper was presented at the Fourth Polish-English Contrastive Conference at Kazimierz in April, 1974, under the title "Deep structures and transformational strategies in contrastive linguistics: a programmatic paper". The spirited discussion which the paper evoked, and the interesting issues which were raised, have persuaded me to publish the paper in what is basically its original form. I have made some points raised by disputants at the Conference. I am particularly indebted to Barbara Fedorowicz-Bacz, Tomasz Krzeszowski, Barbara Lewandowska, Monika Ostaszewska, and Tim Shopen for their helpful comments and criticisms.

> "(...) I think that while error-counts are of some use, the most helpful, basis for insightful contrastive study is entirely theoretical; I think that the confused state of contemporary theory is no proper basis for withdrawing from the challenge of this kind of comparative study..."

So far, TG and CL have enjoyed a profitable but often muddled cooperation. Research to date has revealed much significant information on various TG levels — including phonetics, morphology, syntax and semantics, and the no-man's-lands between these areas; as in the bulk of TG, pure phonology and morphology have fared relatively badly. Nevertheless, the majority of studies in TG-CL have not seriously investigated the formal implications of their analyses[3]. Contrastive work in a TG framework has been widely influenced by Harris' (1954) "transfer grammar", which allows us to establish a core of structures common to two (or more) languages, and a set of rules of transference from a given structure in L_1 to a different but equivalent structure in L_2. In the terms of TG, this has generally implied that the analysis should assign the languages a common base — a strategy which begins in TG with Klima (1962; see more recently Moulton (1968:28) and Lado (1968:125)), and which has, in the post-*Aspects*-era, become linked with the Universal Base Hypothesis and the question of language universals:

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[2] See especially the Poznań *PSiCL* and the Zagreb *Serbo-Croatian-English contrastive project*; and the Stuttgart *PAKS Arbeiten*.

[3]. There have been some notable exceptions: See Fisiak (1975), König (1971), Krzeszowski (1971; 1973), Wagner (1968).

> "What is deep, or universal, or underlying, if you wish, is that which is common to both target and source languages. CA can then be defined as the process of showing how each language interprets universally shared features as unique surface forms".
>
> (Di Pietro 1968 : 68)

This common base or "interlanguage" — a term which has perhaps been borrowed from contemporary work on Machine Translation — can be interpreted either formally (Schachter 1960), semantically (Kufner 1962; Stockwell, Bowen and Martin 1965) or in terms of a latent psychological language aptitude (Selinker 1972).

In practice, however, most approaches to TG-CL have been theoretically less ambitious, and more concerned with the juxtaposition of specific constructions in the languages concerned. Structures which differ between L_1 and L_2 are handled by means of grammatical and morphophonological *transformations* (and occasionally in more semantic terms), together with statements of equivalence or comparison. In many cases this assumption has remained largely tacit, in others more explicit. But the significance and validity of the formal consequence of this strategy have not often been accurately plotted. TG has not been fully exploited for contrastive purposes, and research has concentrated on showing how various transformations differ. There has been, consequently, a disappointingly small amount of progress in contrastive typology. It is therefore important to consider some of the ways in which TG provides a formal model for CL and CA, and a means of stating contrastive relations within a well articulated model of language. For the sake of exposition, this paper is deliberately limited to grammatical phenomena, and the examples are taken primarily from English and Polish. It does not deal directly with questions of applied contrastive linguistics, although the formal contrastive formal should eventually prove to have important applications in this area.

2. TRANSFORMATIONS IN CL

Prima facie, two or more languages may differ in their TG structure in various ways. Irrespective of whether or not they have the same basic rules (a crucial assumption to which I shall return below), their transformational rules may differ as follows:

CASE A. L_1 and L_2 possess a rule which performs the same operations on identical categories.

e.g. Negative-Raising.

he believes that Wilson is not Prime Minister
he doesn't believe that Wilson is Prime Minister

on wierzy, że Wilson nie jest Premierem
on nie wierzy, że Wilson jest Premierem

This also applies to Subject-Raising, though with certain adjustments in Polish, and an important caveat (see below):

it seems that he is happy
he seems happy

wygląda (na to), że jest wesoły
on wygląda wesoło

CASE B. L_1 and L_2 possess a rule which performs the same operation on different categories. A convenient example is topicalization, since both English and Polish may topicalize adverbials, but only Polish may topicalize direct objects:

John went home at five o'clock
At five o'clock John went home

Jan pojechał do domu o piątej
O piątej Jan pojechał do domu

cf.

John ate a pear at five o'clock
*A pear ate John at five o'clock

Jan zjadł gruszkę o piątej
Gruszkę zjadł Jan o piątej

CASE C. L_1 and L_2 possess rules which operate differently on identical categories, as is the case with the ordering of attributive adjectives in English and Polish (Sussex 1974a–b). We find that the order of attributive adjectives, although apparently strikingly different in surface grammar, is indeed sensitive to the same semantic subclassification. The main difference lies in the fact that in Polish the closest adnominal adjective, under certain semantic conditions, occurs in postnominal position:

large paraffin heater
duży piec naftowy

CASE D. L_1 and L_2 possess rules which are similar in neither their operations, nor the categories on which they operate. For obvious reasons, this contrastive type is of little interest in CL unless the rules and/or categories can be shown to exhibit more abstract similarities at deeper grammatico-semantic levels; or unless a given linguistic function is performed by completely different categories and processes in L_1 and L_2. This rarely occurs at the level of grammar, though it is more common in paradigmatics: for example, in aspects of linguistic etiquette following a statement of thanks:

(don't mention it)
proszę
je vous en prie
bitte
(etc.)

These four types of contrast may be summarized as follows, using "+" and "—" as indices of identity:

	PROCESSES	CATEGORIES
CASE A	+	+
CASE B	+	—
CASE C	—	+
CASE D	—	—

The analysis thus far, of course, has been over-simplified in two main respects.[4] In the first place, L_1 and L_2 may possess rules which differ in the restrictions placed on them, quite apart from the similarities or differences already discussed. These restrictions may involve (a) input and/or (b) output restrictions on the rule, (c) categorial restrictions on the constituents which undergo the rule, or (d) constraints on the order in which the rules apply. For example:

(A) Rules applies freely for L_1, whereas in L_2 it may require that a constituent be dominated by a certain other constituent, or that a constituent or constituents occur in certain contexts (orders), etc. (Bibović 1971; Lipińska 1973). Alternatively, the application of a rule can be made conditional on certain aspects of global rules and the derivational history of the sentence under consideration.

(B) Rule$_x$ applies freely in L_1, but for L_2 it may require that the output will not result in certain types of structure. One example of this is Emonds' (1969) structure-preserving constraint, which restricts the output of transformations, broadly speaking, to structures feasible in Phrase-Structure terms. Other types of output constraint, which amount to restrictions on the process itself, may prohibit moving constituents into or out of certain structural configurations or over certain structures; a restriction of this type is stated in Ross's Complex-NP Constraint (1967).

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[4] Considerations of space have also forced me to leave on one side the general question of the comparability of structures in two or more languages. For a discussion of equivalence in deep structures, see Fillmore (1965) and for treatments of the translation-criterion of comparability, see Ivir (1969; 1970), Kirkwood (1966); Levenston (1965), Marton (1968). I discuss these issues in more detail than is possible here in Sussex (forthcoming).

(C) There are many types of categorial restrictions on constituents undergoing transformational rules. These may concern

1. The identity of the constituent: a rule like $T_{Passive}$ will apply to verbal nodes marked /+V/ but not to those marked /—V/
2. Strict subcategorization features: the agent-nominalization transformation will only apply to verbs marked positively for occurrence with animate noun subjects.
3. Selectional features: optional object-deletion rules do not apply to verbs like *own* which require an object.

(D) Rule-order. This type of contrast is not well illustrated in the contrastive syntax of English and Polish. Halle (1971), however, demonstrates this phenomenon in contrastive Slavic phonology.

The second respect in which the above analysis is over-simplified concerns the status of a given rule respective to the other rules of L_1 and L_2. TG has so far devoted rather little attention to this problem, largely because of its lack of concern for quantitative relations between individual rules, and between rules and linguistic data. For CL, however, it is most important to establish whether a rule is major, minor, or somewhere on the line in between — AND on what basis this judgment is to be made. TG generally interprets the notion 'major rule' in one or more of the following ways:

(1) Lack of lexical restrictions: a major rule applies to a large class, or macroclass of subclasses, of lexical items.

(2) Lack of contextual restrictions: a major rule operates in a wide variety of maximally unrestricted syntactic/semantic contexts.

(3) Lack of input/output conditions: a major rule is maximally free of such restrictions.

An adequate CL description clearly requires that we elevate this criterion from its present relatively unimportant place in TG, and to provide some means for dealing with contrastive quantitative statements in what we might call 'rule-assessment'. This would allow us to deal with the comparison of structural *types* in a sensible way, and to improve, for example, our treatment of Case B at the beginning of this section: Subject-Raising is a major rule in English, but a minor one in Polish. From the point of view of types, indeed, Subject-Raising is a very minor rule in Polish, since it applies, to my knowledge, only to *wydawać się* and *wyglądać* 'seem'. But these are very common verbs and to base the assessment of Subject-Raising on the type criterion alone gives a misleading impression, especially for CL, of the frequency of *wydawać się* and *wyglądać*. I therefore propose that a really insightful statement of the properties of this rule in CL requires a *type+token* format, heuristically arranged in precisely this order. This will allow us to state the relation between rules with a proper regard for the kind of information that is critical to CL.

We therefore have a multi-dimensional model with three main areas for testing contrasts:

processes and categories
restrictions on processes
rule assessment

With this mechanism we can make statements of considerable delicacy about the relative status of constructions and processes in contrasted languages; and we can, furthermore, talk of degrees of similarity, based on the way in which linguistic structures are specified by the three criteria. By this I do not wish to imply that linguistic contrasts can necessarily be quantified in a precise numerical sense. We are still far from reaching an arithmetical basis for such statements. At this point, I merely wish to suggest that a relative quantification is possible. There is, after all, a precedent in Prague School phonology: for example, /p/ and /b/, which differ in the feature /Voice/, are closer than /p/ and /m/, which differ in /Voice/ and /Manner/. A comparable procedure could perhaps be used in ranking difficulties in applied CL (see Stockwell, Bowen and Martin (1965) and comments by Bolinger (1968)).

3. PHRASE STRUCTURES IN CL

So far, our analysis of grammatical similarities and differences has concentrated on transformational processes and the categories they include. We have not considered the manner in which the categories are generated for input to the processes — i.e., what is accomplished by the PS rules of a transformational-generative grammar. What of the similarities and differences in this component of the grammar? In the context of Harris' transfer grammar, it makes good sense to regard the similarities as a basic, common core. It is then possible, by increasing the number of languages compared, to arrive at a statement of linguistic universals and typology based on the languages under investigation. This may be done either by comparing L_1 and L_2 to give a common core $L^{C(1+2)}$ and a statement of transfer rules $L^{T(1+2)}$, and then comparing $L^{C(1+2)}$ with L_3, giving $L^{C(1+2+3)}$ and $L^{T(1+2+)}$, and so on; or by simultaneously comparing L_{1-3} to give $L^{C(1+2+3)}$ and $L^{(T1+2+3)}$. Either way, the resulting core grammars and adjustment rules are arrived at inductively. Developing this argument, it is clear that the more languages we include, the greater the inductive generality of the core and adjustment rules. Furthermore, this notion of generality can be quantified in the sense outlined above — not numerically, but relatively: other things being equal, $L^{C(1+2+3)}$ and $L^{T(1+2+3)}$ will be more general than $L^{C(1+2)}$ and $L^{T(1+2)}$, and less general than $L^{C(1+2+3+4)}$

and $L^T(^{1+2+3+4})$. Procedures of this kind are well attested in taxonomic linguistics.

This pattern is consistent with TG grammars on the Phrase Structure+Transformations format only in so far as the grammar is viewed inductively. There are certain respects in which the model of *Syntactic structures* (Chomsky 1957) can be interpreted in this light; but *Aspects of the theory of syntax* (Chomsky 1965) clearly belongs to a different breed of grammars. In such generative grammars the main danger for CL is that we may unthinkingly assign similarities to the base rules — as has sometimes been done by false analogy with Harris' transfer core (and as is an article of faith in the Universal Base Hypothesis). This leads to a two-fold error, since it obscures the similarities of transformational structure as well as possible differences in the base rules.

It is worth pursuing this, perhaps obvious, point further. We must at once admit that there are some problems which cannot be assigned unequivocally to the base rules in preference to the T-rules, and *vice-versa*. This is especially clear in certain cases where surface structures play a part in semantic interpretation, as has been shown in recent work by members of the Lexicalist persuasion. The solution to these problems depends partly on axiomatic considerations, and partly on the complex "trading relation" between PS- and T-rules. But contrastive research has too often assumed that similarities should be placed in the PS-rules, unless there is some compelling reason for not doing so. Such an approach would analyse (with Lakoff 1965 and many others) the PS structure of a language like Chinese, which lacks a surface copula, as being identical to the PS rules of English (which must always have a copula), Polish (which must almost always have a copula), and Russian, which has a surface copula rather less frequently than Polish. Granted, we can then use the transformations to show how the various languages differ, the burden of contrastiveness then being borne by the output conditions on the copula-transformation. But this is not necessarily the best way to proceed. Indeed, by not allowing the Deep Structure of contrasted languages to express differences, we can sometimes risk missing some important generalizations.

A standard example is found in the status of impersonal sentences in Slavic. By this I do not refer to sentences which may have a surface subject, like

było dziwne, że on przyszedł
it was odd that he came
to, że on przyszedł było dziwne
that he came was odd

or even

podano herbatę
tea is served (lit., it-served tea (acc.))

but rather structures like

Cicho. Mokro
It is quiet. It is wet

jest mi przykro
I am sorry

These „genuine" impersonals require a PS rule like

S → (NP) VP

as Milka Ivić has remarked. This separates Slavic clearly from English, which must always have a surface subject, even if it is only "it". This generalization is otherwise impossible to capture naturally in transformational rules without radically revising the function of transformations in a TG grammar.

A less obvious example concerns constituent structure of a different kind. Polish, of course, has no structure exactly parallel to

hopefully they will leave early

from the point of view of translation. Still other instances oppose a transformational to a PS analysis. In Russian there is an interesting construction which uses inversion to express approximation with numerals:

šest' soldatov
six soldiers
soldatov šest' OR okolo šesti soldatov
about six soldiers

whereas English and Polish have only the prepositional constructions:

about six soldiers
około sześciu żołnierzy

English and Polish would therefore deal with *about/okolo* in a standard way, using PS rules and introducing *about/okolo* lexically. But in Russian, in order to capture the parallelism of N+Num and Prep+Num+N, we require an abstract morpheme (Approximative), which would be realized transformationally as either the lexical item *okolo* or by the syntactic process of inversion.

We must therefore allow for a contrastive model which permits contrasts of differences as well as similarities on both the PS and transformational levels. It must further include a comparison metric for Deep Structure similarities and differences along the lines of the transformational comparison metric outlined in §2. Of course, it is always *prima facie* possible to generalize the contrasted structures so as to produce a common base. Thus, the allegedly superficial distinction between verbs and adjectives is analyzed by Lakoff (1965) as

VP → Verbal...
Verbal → ±V
(Verb=/+V/, Adjective=/−V/)

It is possible, but sometimes difficult, to challenge most such analyses on at least some grounds in general TG: reductionism can be carried too far. But it is much easier to do so in CL, because it can be shown that we lose generalizations by so doing. Thus the view that adjectives and verbs are categorially non-distinct effectively obscures the contrastive difference between English (clearly distinguished surface adjectives and verbs), Chinese (no surface distinction), and Polish, which has some clear cases of adjectives, some of verbs, and a small mixed transitional category involving *powinien* 'must, obliged' (etc. ,about 20 in all) with some verb-like properties involving suffixation. This is particularly clear when dealing with genetically related languages, where we want to know the maximum degree of similarity (i. e., the closest point to surface structures at which similarities can be stated) rather than the maximum degree of abstraction which the data will tolerate. With the problem of definiteness, for example, a contrastive grammar of English and French should be able to state naturally that a categorial analysis of determiners is possible in terms of /Def/ as a full constituent; it may be overruled by other considerations of general linguistic theory, but it would be premature to presuppose the solution for Polish, which lacks such a definite article in surface structures (see Sussex 1975a). Here a transformational analysis is in order, to describe the difference between

przyszedł chłopak
a boy arrived
chłopak przyszedł
the boy arrived

There are two problems here. One concerns the concept of 'insightful' explanation, which I see as bound up with (a) generality, (b) simplicity, and (c) the concept of 'natural rule', both in general, and with reference to a given language. This last notion has played a significant role in generative phonology over the last few years, notably in David Stampe's 'natural phonology'. But it has not yet made a decisive impact on grammatical studies, although there is an increasing amount of evidence to suggest that a notion of this kind may play an important role in grammatical processes of moderate depth. I am not sure whether we can yet talk meaningfully about a naturalness criterion which will decide whether a given phenomenon should be treated transformationally or in the PS rules (or lexicon, as in the case of Chomsky's Lexicalist Hypothesis). Certainly, psycholinguistics has so far failed to provide such a criterion. And appeals to the internal logic of axiomatic systems have often resulted in analyses which are inherently non-natural (Sussex 1975b). CL, however, provides one of the least equivocal motivations for not generalizing or abstracting beyond the inductive limits set by the data.

This consideration, however, involves us in the second problem, that of degrees of abstractness. CL, which is inductive in spirit, aims at the minimum abstractness necessary to encompass the data (the non-inductive view of CL, as I have said above, uses it simply to verify hypotheses about general linguistic postulates of axiomatic systems, which tend to aim rather at the maximum abstractness possible for a given set of data). From this point of view Snook (1971) is probably correct in preferring a 'performance' model like stratificational grammar. But he is most certainly wrong in thereby rejecting TG outright as a vehicle for CL. One counter-argument is that there may well be errors of competence as well as of performance, a question which is embarrassing for the Lamb model. More importantly, however, the *Aspects* format does possess a certain measure of flexibility. On the one hand there is the axiomatized formalization of deep grammar; and on the other the infinite variety of levels from deep to surface grammar in which the statements of CL can be couched. It is precisely in the interplay between these levels, and their contrast across languages, that the *Aspects* model presents such rich possibilities for CL.

4. CONCLUSION

What I am proposing is not a contrastive model, but rather a partially formalized framework in which contrastive statements can be compared. This framework required the mechanism of variation outlined in §2, together with a similar mechanism for PS rules. The metatheory will contain notions like 'natural rule' and 'degree of abstraction', as well as 'formal identity/non-identity' and 'formal similarity'. These are the lines along which I believe CL should develop if we are to give a positive response to Hamp's questions.

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SOME POSTULATES CONCERNING THE ROLE OF TRANSLATION IN CONTRASTIVE STUDIES

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1.0. PRELIMINARY REMARKS

A retrospective look at the Polish-English Contrastive Project annual conferences reveals that translation enjoyed no more than a token interest. The first paper entirely concerned with translation was given by Tabakowska in 1971, and even though it dealt with the function of translation in foreign language teaching the importance of at least one statement is obvious, as we read the following:

> (...) contrastive studies involve comparison of selected subsystems of the languages concerned, and as comparability is proved by translatability, translation has become a recognized criterion for establishing the crucial notion of equivalence. Thus, it *must be considered... a basic tool for those who deal with contrastive studies for theoretical purposes* (Tabakowska 1973: 131).

Translation offers valuable insights into the organization of language and no less important insights into specific features of at least two languages at a time.

The present paper seeks to point out the significance of translation in studies of contrastive nature. The discussion is limited only to natural languages in their written and spoken forms. Machine translation is not referred to.

2.0. WEALTH OF DATA

Translation work can be roughly classified into LITERARY and NON-LITERARY categories. The first one embraces works of fiction, poetry and drama; the second one — all the rest. (This may be a controversial division since some scholars maintain that there is also an intermediate category (cf. Klemensiewicz 1969). Both types offer an enormous quantity of recorded data on equivalent units in two languages. The data is not, however, used systematically. Instead, authors of contrastive papers try to turn translators themselves to produce *ad hoc* equivalents of their English or Polish

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examples, respectively. In effect, sometimes we can see that a particular author may be trying to bend his native Polish to obtain some sort of symmetry between his English and Polish utterances.

I believe that a systematic analysis of literary and non-literary texts in translation could become one of the best sources of information on contrastive syntax and lexicon of English and Polish, to mention only this pair of languages. No doubt someone may object to this procedure saying that translated texts are not very reliable sources of information because translators are not always able or willing to produce the best results of their work. Using one's own judgement and intuition in matters of language continues, however, to be necessary and, in certain aspects of language study, the only reliable yardstick, suffice to mention the problems of stylistics. The problems of stylistics are taken up in subsequent parts of the present paper.

The most immediate applications of this approach are connected with certain lexicographic shortcomings in the area of English-Polish and Polish-English reference books. One is a compilation of Polish equivalents to at least a large portion of **Roget's** thesaurus (Dutch 1970) (the available extensive work by Skorupka (1968) is, unfortunately, insufficient); the other one is a phraseological dictionary, something patterned after the Russian work of Kunin (1956).

3.0. TYPES OF SOURCES

The available material may be grouped under two labels: $E_{sl.}$ texts and the $P_{sl.}$ texts, where "E" stands for English and "P" for Polish while "sl" stands for Source Language.

The best and most reliable data may be derived from the $E_{sl.}$ literary texts since there are a number of very good translators. My own classroom experience pointed out the effectiveness of the analytical approach to translations in terms of lexical observations and comments when I had asked the class to review, for example, three different translations of *Alice in Wonderland* (a. Morawska, b. Marianowicz, c. Słomczyński) and compare them with the original .Other interesting findings were made by the students in the course of analyses of *Catcher in the rye* and *Love story*.

In the field of the Esl. non-literary texts the amount of material in absolute figures exceeds that of the above-mentioned group. Yet here the work is performed by a much more qualitatively variegated body of translators, consequently the analyst must always be alerted to the fact that he may be reading a poorly done text. As a sideline comment we may say that formal training of translators and interpreters has only just begun in this country. Until the future graduates become fully-fledged specialists the present hodge-podge of genuine experts and would be translators of varying skills will continue to produce texts of mixed quality. The materials for analyses may range from exerpts from British and American newspapers and magazines to highly sophisticated books in exact sciences. As regards the latter, it must be stressed here that more often than not they are done by experienced translators and verified by specialists in the respective fields, so these sources are also highly reliable.

Passing now to the other group of texts — the $P_{sl.}$ — we must say that the situation here as far as Poland is concerned is drastically different.

Availability of Polish literary texts translated into English is very low, and it stands to reason. No British or American publisher is inclined to offer a contract to a native Pole to translate a Polish literery work into English, even though the Pole's command of the language may be superb. (There is a notable exception to such an approach in the area of Polish-French texts where a Pole has been a prize-winnig translator, whose works are published by French publishers). Sources of this type may be more easily available in English-speaking countries, as for example, one can get a copy of *Pan Tadeusz* in English in London or New York rather than in Warsaw.

As far as the non-literary translations from Polish into English are concerned, let us look at a comment by a British specialist in the field of translation (Finlay 1973:4):

> "Letters in English are quite often received by British firms from such countries as Japan and Poland which are quite impossible to understand".

This refers to only a small part of texts produced in English in this country but could easily be used in reference to a very large portion of them. A sizable volume bearing the title *Poland*, a collection of facts and figures published on the occasion of the thirty years of People's Poland, is a very strange cocktail of good, poor and downright bad English. That this runs counter to the aspirations of the country to win friends abroad through printed media is, I believe, more than obvious.

Texts from this category include propaganda materials, press agency bulletins, scientific publications. Yet, in view of the fact that most of these texts are produced by native Poles only occasionally reviewed by native speakers of English, I believe they are hardly reliable and as such should rather be discarded or used cautiously after consultations with a native speaker of English.

4.0. PROSPECTS

The above brief outline of the situation in the field of translation in Poland shows that as far as contrastive lexical data collecting is concerned the best source are literary translations from English into Polish and that the worst source are the non-literary texts from Polish into English. Consequently a question arises whether this could be changed. It seems that the simplest solution would be to hire as many native speakers as necessary whereby the problem would cease to exist. But even a short moment of reflection upon the economic and social aspects of such a measure is enough to understand that the proposal is untenable. The developing economy of this country will have a growing need for language services in industry, science, culture economy, etc., and to see every institution offering a full-time position to a British or American language expert responsible for the quality of the English language it may be using in public relations is a hypothesis doomed to remain a hypothesis. Measures for improvement of the situation must be sought elsewhere, and here again the contrastive studies may become a good instrument towards this improvement.

One of the most difficult aspects of language is style. A student, diligent at that, may go through all stages of training in English at university level and still be at a loss when it comes to stylistics. His command of grammar and of a fairly large number of lexical items is often inadequate when he is to translate a piece of text into English. Thus, he may fail his test at the Polish Press Agency (PAP) because he does not know how to build an agency news item because he had not been taught to do so and because literature on this subject is not readily available in Poland. Theoretically he could learn such a skill by going either to a news agency in Britain or in America, but again social and economic factors make the proposal untenable. He must have ways to better his English style here. One of the ways is offered by contrastive analyses of styles.

5.0. A CASE FOR CONTRASTIVE STYLISTICS

The matter of style and stylistics has been dealt with by many and there is no point in quoting here a list of different definitions coined by scholars since the information is available in numerous publications. However, there is one given by Werner Winter (1964 : 324) which, as it were, builds the foundation of the current proposal:

> "A style may be said to be characterized by a pattern of recurrent selections from the inventory of optional features of a language. Various types of selection can be found: complete exclusion of an optional element, obligatory inclusion of a feature optional elsewhere, varying degrees of inclusion of a specific variant without complete elimination of competing features".

The subject of stylistics — as Galperin (1971) suggests — can be outlined as the study of the nature, functions and structure of stylictic devices, on the one hand, and the study of various styles of language (literary, essaistic, journalistic, scientific, 'officialese', etc.), that is, their aims, their structures, their characteristic features and the effects they produce, as well as their inter-relationships.

At this point it is also imperative to bring out the two terms suggested by Nils E. Enkvist (Enkvist et al. 1965:46): *microstylistics* — "the study of style markers and stylistic sets within the sentence or within units smaller than the sentence", and *macrostylistics* — "the stylistics of sentence sequences".

As was pointed out earlier, the formal training in English provided by our universities does not introduce the student to the difficult area of stylistics.

In my opinion, the setting up of a special interest group within the framework of the Polish-English Contrastive Project primarily concerned with stylistics and largely basing its initial work on data originating from texts of translations from the two languages concerned, would be a very practical step towards attaining generally better effects in the field of lexical (including phraseology) and syntactic correspondences that have to be known by, for example, translators.

5.1. TASKS FOR THE ANALYSTS

These could fall into at least two categories. One would be to handle the theoretical apparatus for the type of investigations. Polish publications on stylistics and poetics are quantitatively much inferior to those of British and American authors. In view of this it would be necessary to review the sources and arrive at a set of contrastive stylistics categories. Then every item of this set would be supplied with data on English and Polish, and here the work would be continued along the line of micro- and macro-stylistics. In the long-range planning one could forsee a study embracing phonostylistics at one end, the stylistics of sentence sequences at the other. It would be only natural for the analyst to work within the two major categories of data: literary and non-literary sources. Here some further comments on this dichotomy are in order.

5.2. ART AND CRAFT

It may be conjectured that the dormancy of translation as a linguistic discipline (except for the last decade) had followed from popular beliefs that translation was simply a part of routine work of language practitioners and as such was not fit for theoretical dissertations. While it is true that texts produced by translators include little data on how they do it, yet it seems that the disproportion is irrelevant, and in the case of translation from Polish into English by native Poles theoretical studies in contrastive stylistics could become useful in coping with the difficulty.

Linguistic theories of translation are relatively new and not very numerous. At the same time there are countless heterogeneous and vaguely impressionistic descriptions of what translation is about.

One can easily notice the existence of the international lore of a kind. It finds expression in such glib lines as for example: translator=traitor (Traduttore-Tradittore); translation is like a woman: if beautiful then not faithful, and vice versa; it is similar to a piece of tapestry seen from the reverse side, etc. Such comments have often been perpetrated by literary translators willing to write witty essays and articles. These are usually intended to prove that their work is inherent to the art of belles-lettres. They simply make hardly any mention of the other type of texts thus automatically grading them as good for craftsmen only. One cannot but feel a little perplexed seeing this in a periodical published by the International Federation of Translators (F. I. T.) — "Babel".

This tendency gained momentum — as pointed out by Ludskanov (1973) — about the middle of the 1950s. The debates between the spokesmen for the creative literary and those for the creative (or not) LINGUISTIC values continue to expand. They have also grown more acute ever since first automatic computer translations became a fact. The supporters of the creative art approach indicate that computers could handle only scientific texts, devoid of all the features of poetry and literary prose. The supporters of the linguistic interpretation stress the regularity of translation processes and its purely linguistic nature. In effect, a tendency has emerged to distinguish between *interpretation* (not to be mixed with 'interpreting', a technique used in translating spoken texts) and *translation*. The works of Russian authors, Rozenzweig and Revzin (1958), put substance into the hypothesis. The artistic work in translating belles lettres justifies its separation from any other type of translation but not because of literary reasons, rather most decidedly because of purely linguistic reasons. When the translator decodes a language message from the original and determines what piece of reality this message corresponds to (extralinguistic reality) he in fact interprets the message received. Subsequently, using this extralinguistic reality as his starting point he generates a new language message supposed to reflect reality in the same way as the original — this is *interpretation*, a creative act and a form of literary activity.

When the translator decodes the original message and generates his text only by means of pre-established lists of equivalents between the two languages while by-passing the interpretation act — this is *translation*, an act that does not involve creativity and is a form of non-literary work. Stress is put, however, on the fact that the border-line between the two is not invariable. The better the formal description of language the less room will be left for interpretation and more added to translation. Consequently, there must be two separate theories of translation: one being a part of the general theory of literature (a kind of literary theory of translation) and the other being a part of general linguistics. A methodological and logical question arises, however, says Ludskanov (1973:61): "Modern science aims at abstractions of ever higher orders... Logic forces us, therefore, to find out which of the two is a more general notion, generic and superior that is, constituting a higher order of abstraction".

The present paper does not attempt to provide an answer to this question since in essence it deals with a different problem, yet it seems worthwhile quoting it here and drawing the attention of the contrastivists.

5.3. SOME AREAS OF POLISH AND ENGLISH LEXICON

The following is not a blueprint for research in the field, rather only a short register of future research topics:

1. General observations on style and stylistics in English and Polish.
2. Types of stylistic devices.
3. Lexical meaning.
4. Grouping of lexical items according to styles.
5. Phonostylistics.
6. Lexical means of stylistic expression.
7. Styles of Polish and English.
8. Set expressions and rhetorical devices in English and Polish.

These certainly must be subitemized and also combined with parallel work in stylistic syntax if we want to arrive at a relatively complete description of the differences and similarities between the two languages.

I believe it is a promising area of research albeit a difficult one.

6.0. CONCLUSIONS

The relatively low level of interest in using translation materials as a source of data for contrastive studies stands no reason. Properly organized analytical work could provide very useful results for the users of the two languages. The Polish-English Contrastive Project is an appropriate place for initiating this type of work. One of the effects of the research could have an immediate practical application in the area of foreign language teaching at very advanced levels — such as the training of translators and interpreters:— by providing them with information on stylistics, mainly focused on lexical and syntactic devices used in the two languages.

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DEEP VERSUS DETAIL RULES IN PHONOLOGY

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The term "detail rule" was introduced by Postal (1968 : 66) to describe the phonological rules which make minor distinctions between segments of the phonetic representation (roughly, the function performed by allophonic statements in the classical phonemic framework). In this understanding (i.e. more general than Anderson 1975) it is used in the present paper. The nature of detail rules has never been fully investigated by generative phonologists. Only very recently there have been some attempts to inquire into the mechanisms of the phonetic representation. Shibatani (1973) has suggested that phonetic details should be taken care of by postulating Surface Phonetic Constraints. However, as I have argued elsewhere (cf. Rubach 1975), Shibatani's constraints are not capable of replacing detail rules. Therefore, it remains a fact that these rules must form part of the phonological component of language and consequently it is not only worthwhile but simply necessary to investigate their nature and role in phonology.

A natural expectation is that detail rules will be ordered towards the end of the phonological component. This expectation turns out to be generally true. However, as has been convincingly demonstrated by Anderson (1975), there are cases of detail rules which refer to numeric values and interact directly not only with phonological but also with morpholexical rules. This interaction consists in an earlier application of detail rules than the two other types of rule. The question which calls for clarification is how and in what other ways detail rules relate to deep phonological rules. The present paper hopes to contribute to answering this question. In order to do it, we shall look at some assimilation processes in British English and Polish. The attention will centre primarily around obligatory rules. Thus we shall disregard phonostylistic forms such as [[kũw̃št] for slow speech [kunšt] *kunszt* ("art") or [emti] for slow speech [empti] *empty*, where [n] vocalization and [p] deletion are characteristic of causal and/or rapid speech and consequently are performed by phonostylistic rules (cf. Rubach 1974).

In English and in Polish the place of articulation of nasals is predictable from the place of articulation of the following consonant:

(1) English:
- a) bilabial: *pump, sample, assemble*;
- b) alveolar: *tent, tend, dependent*;
- c) velar: *bank, Congo, language*;
- d) palato-alveolar: *bench, punch, attention*;
- e) dental: *tenth, eleventh, month*;
- f) postalveolar: *Henry, enrol, enrich*.

(2) Polish:
- a) bilabial: *krępy* ("corpulent"), *skąpy* ("mean");
- b) dental: *błąd* ("mistake"), *wstręt* ("repugnance");
- c) alveolo-palatal: *swędzić* ("itch"), *dąć* ("blow");
- d) velar: *rękaw* ("sleeve"), *pociąg* ("train");
- e) alveolar: *Henryk* ("Henry"), *nędza* ("misery");
- f) postalveolar: *miesięczny* ("monthly"), *kunszt* ("art");
- g) palatal: *obcęgi* ("pincers"), *lęki* ("fears").

One place of articulation is missing in both lists: labiodental. The omission is not accidental: [ɱ] in *nymph, infant* or *tramwaj* ("tram"), *inwazja* ("invasion") is not obligatory (Gimson 1964:190, 191, and B. Wierzchowska — personal communication) and consequently the assimilation must be performed by a phonostylistic rule. At the moment our interest centres only on obligatory assimilations.

The problem which we are facing now is how to account for the above data. This question has already been asked by other linguists, notably by Chomsky (1965 : 176), Cygan (1971 : 96), and Gussmann (1974 : 115). As pointed out by Cygan, Chomsky's rule for English is simply incorrect. Cygan himself suggested two separate deep phonological rules which were collapsed and completed in some details by Gussmann. All these analyses were making two assumptions: a) underlying representations contain an unspecified nasal /N/, b) deep phonological assimilation takes place before all consonants in English, in Polish — before noncontinuants (Gussmann 1974 : 114). When Stanley's claims (1967) gained a general acceptance the first assumption was abandoned: underlying the nasal is specified as /n/. The second assumption makes the rules highly opaque:

- — the appearance of [m] or [n] is not predictable before [f, v], viz. *triumph, pamphlet, nymph, emphasis, comfort* vs. *infant, influence, Banff, conflict*;
- — the rules should not apply to *columnal, chimney, enmity*, etc., Polish *ciemny* ("dark"), *wzajemność* ("mutuality"), *komnata* ("chamber"), *pomnik* ("monument"), etc.

Before we proceed, let us make some observations about the data. In the first place, it should be noticed that nasal assimilations take place in three main articulatory regions: labial, coronal and velar (more precisely: noncoronal and nonlabial). Thus the underlying /n/ may remain coronal (*tent, tenth, Henry, bench, błąd, Henryk, miesięczny, dąć*) or change either into labial (*pump, krępy*) or noncoronal and nonlabial (*bank, rękaw, obcęgi*). The second important observation concerns the nature of the conditioning consonant. Notice that across the main articulatory regions /n/ assimilates only before noncontinuants, i.e., we do not get [m] in *infant, inwersja* ("inversion") nor [ŋ] before [x] in *węch* ("smell"), *koncha* ("conch", here either [n] or [w̃]). Furthermore, as *enmity* and *pomnik* indicate, this noncontinuant must be necessarily an obstruent.[1] Within each articulatory region (in our case with the exception of labial as [ɱ] is phonostylistic in *emphasis, emfaza*) assimilations take place before all consonants, no matter whether they are obstruents or resonants, noncontinuants or continuants, cf. (1d), (1e), (1f), (2e), (2f). Alveolo-palatals in Polish behave slightly differently — see below.

The above two observations might suggest that we should actually have two separate nasal assimilation rules in each language: deep phonological (assimilation across the regions) and detail phonetic (assimilation within the regions). If we want to accept this suggestion we must look for some other arguments: so far the decision whether to account for nasal assimilations by means of one or two rules seems to be primarily motivated by formal difficulties.

The situation becomes clearer when we look at assimilations across boundaries. These take place obligatorily within but not across the articulatory regions:

(3) English:
  a) *ten thieves, thin thread*;
  b) *ten rolls, main region*;
  c) *ten churches, unjust*.
(4) Polish:
  a) *pan ruszył* ("you moved"), *ten różowy* ("this rosy..."),
  b) *pan czekał* ("you were waiting"), *on szukał* ("he was looking for");
  c) *bank kierowany* ("the bank directed"), *okręg kielecki* ("Kielce region").

These cases stand in opposition to *ten people, pan powie* ("you will say"), etc. where the assimilation is possible only in rapid speech, i.e., it has a phonostylistic ranking.

The decisive argument is the following: within and not across (cf. *tkać*,

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[1] Words like *immoral* are not counterexamples. The rule at play here is that of absolute resonant assimilation and not nasal assimilation, cf. also *irrelevant, illegal, innumerable*.

"weave"; *ptak*, "bird") the articulatory regions there are assimilations of all noncontinuants and not only nasals. Thus we have:

(5) English:
  a) dental [t, d, l] in: *eight, width, health, eight thorns*, etc.
  b) palato-alveolar: *cadetship, midshipman, Welsh, belch, night-shade*, etc.
  c) postalveolar: *ancestry, dry, walrus, that rose*, etc.

and similarly in Polish:

(6) a) alveolar: *trawa* ("grass"), *droga* ("road"), *Polres* ("a name"), *brat radzil* ("brother advised"), etc.
  b) postalveolar: *trzeba* ("ought to"), *drzewo* ("tree"), *milszy* ("nicer"), *brat szukal* ("brother was looking for"), etc.
  c) palatal: *lekki* ("light"), *miękki* ("soft"), *bank kierowany* ("the bank directed"), etc.

In the light of these facts it becomes clear that any attempt at postulating a single nasal assimilation rule taking care of all the major and minor changes would be undesirable: even if the difficulties with the formalism could be overcome we would still want to have two different assimilation rules: one deep phonological and referring only to nasals, the other — a detail rule of noncontinuant assimilations. Treating detail nasal assimilations as different from the assimilations of other noncontinuants would be missing a significant generalization.

Now let us see how the respective rules look. English has the following deep phonological rule of nasal assimilation:

$$(7)\qquad [+\text{nas}] \rightarrow \begin{bmatrix}\alpha\ \text{anter}\\ \beta\ \text{coron}\end{bmatrix} \Big/ \ -(=)\begin{bmatrix}+\text{obstr}\\ -\text{contin}\\ \alpha\ \text{anter}\\ \beta\ \text{coron}\end{bmatrix}$$

This rule applies only in the context of noncontinuant obstruents, i.e., words like *chimney, columnal, enmity* are excluded. The prefix boundary is optional since there are nasal assimilations in *compose, compel, control*, etc. Rule (7) applies across morpheme boundaries but not across word boundaries, no matter whether they are external (*ten people*) or internal (*unpleasant, unkind, Edinburgh* — see Rubach 1974). Thus we get *impolite* (a morpheme boundary) and *unpolite* (an internal word boundary). Assimilations across major boundaries are performed by a different rule which is of a phonostylistic nature. Rule (7) has some exceptions: in prefixes before back stops we may get [n] and not [η] in slow speech: *conclude, inquisition, encourage, enclitic*, etc. Chomsky and Halle's observation (1968 : 419) that [η] appears when the vowel is stressed and [n] when unstressed is hardly tenable in view of words like *congressional* — only [η], *concrete, concourse, concord* (N) — either [n] or [ŋ] (cf. Gussmann 1974 : 116). One would tend to agree with Kruisinga (1925 : 213) that this is a tendency and not a rule.

Notice that within the coronal region rule (7) does not make accurate predictions: it only specifies the coronal nasal as anterior or nonanterior ignoring the fact that within each region we may have two nasals: in the former — dental or alveolar [n], in the latter — postalveolar or palato-alveolar. These minute distinctions must be made by a detail rule. Before we formulate it, however, it is necessary to define the feature matrices for contrasting the noncontinuants articulated within the coronal region.

We propose that the relevant segments be distinguished by means of the features [±anter] and [±distrib]:

	Dentals	Alveolars	Post-alveolars	Palato-alveolars
anterior	+	+	−	−
distrib.	−	+	−	+

The above feature configuration assumes that all segments produced further back than the alveolar region are nonanterior (basically, *The sound pattern of English* meaning of this feature). The feature [±distrib] is taken as a relative one, i.e. it provides distinctions within anterior and within nonanterior sounds separately on the basis of examining the length of the zone of contact in the production of particular sounds (cf. Chomsky and Halle 1968 : 312).The palato-alveolar [n], as in *French*, differs from alveolo-palatal [ń], as inPolish *niania* ("nurse"), by being [-high] at the same time both segments are [+coron][2].

Now we can formulate a detail noncontinuant assimilation rule:

$$(8)\quad \begin{bmatrix} -\text{contin} \\ -\text{del rel} \\ +\text{coron} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha\ \text{anter} \\ \beta\ \text{distrib} \end{bmatrix} \Big/ \ \text{—}([-\text{seg}]) \begin{bmatrix} +\text{conson} \\ +\text{coron} \\ \alpha\ \text{anter} \\ \beta\ \text{distrib} \end{bmatrix}$$

As noticed earlier, the detail rule must apply also before continuants, viz. *mention, width, heath, try*. The optional [—segment] specification permits it to apply across all types of boundaries — see (3).

To see how rules (7) and (8) operate, let us have a look at some sample derivations:

bank	*pump*	*country*	
/-nk/	/-np/	/-ntri/	
ŋk	mp	vácuous	Rule (7)
—	—	nt̠ri	Rule (8)
—	—	n̠t̠ri	Rule (8)

---

[2] Coronality extends up to the palatal region. Polish /ń, ś, ź/ are [+coron] and not [−coron] as was given by mistake in Chomsky, N. and Halle, M. (1968:413).

bench	*unjust*	*poultry*	
/-nč/	/an # ǰ-/	/-ltri/	
n̠č	—	—	Rule (7)
n̠̠č	an̠̠ # ǰ	lt̠ri	Rule (8)
—	—	l̠t̠̠ri	Rule (8)

where "—" means retracted.
Note that rule (8) applies iteratively.

The Polish rules are considerably more complicated. The deep phonological rule of nasal assimilation takes the form of (9):

$$(9)\qquad [+\text{nas}] \rightarrow \begin{bmatrix} \alpha\ \text{anter} \\ \beta\ \text{coron} \\ \gamma\ \text{high} \end{bmatrix} \Big/ \left[\begin{matrix} \text{V} \\ \left\{\begin{matrix} [+\text{stress}] \\ \begin{bmatrix} -\text{high} \\ -\text{low} \end{bmatrix} \end{matrix}\right\} \end{matrix}\right] \text{—} \begin{bmatrix} +\text{obstr} \\ -\text{contin} \\ \alpha\ \text{anter} \\ \beta\ \text{coron} \\ \gamma\ \text{high} \end{bmatrix}$$

A detailed discussion of the rule can be found in Rubach (1974). Therefore, we shall confine ourselves only to a brief explanation of a few points. Assimilation takes place only between a vowel and a stop or an affricate — see (2a-d), i.e. not in *hymn* ("anthem"), *mnożyć* ("multiply"), *zamsz* ("suede"), *czeremcha* ("bird-cherry"), etc. Furthermore, if the vowel is not mid[3] it must be stressed.[4] This condition divides foreign borrowings in Polish into two groups: a) those which can only have [ŋ] such as *bank*, *tango*, i.e, the words which have been assimilated to the native pattern — rule (9) applies; b) those which do not undergo (9) as they may yet be pronounced with [n] in slow speech: *anglistyka* ("English studies"), *Angola*, *Ankara*,[5] etc. (we get [ŋ] in these words by a phonostylistic rule of nasal assimilation).

The only unambiguous nasals which the rule generates are [m], [illegible]-postalveolar and [ń], where the latter has the specifications [+coro[illegible] —anter, +high], see (2a), (2f) and (2c). The other two nasals produced by [illegible] (9) are unspecified for the exact place of articulation: [+coron, +an[illegible] —high] could be either dental or alveolar [n], [—coron, —anter, +high[illegible] could be either a velar or a palatal nasal, cf. (2b), (2e), (2d), (2g), respectively.

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[3] There are very few exceptions — words of foreign origin, e. g. *komtur* ("Commander of Teutonic Knights"). An alternative solution would be to specify the inputs to (9) as coronal. This would automatically exclude *komtur* but at the same time make the rule more costly. The environment would have to stay the same: not only *emfaza* ("emphasis") but also *końmi* ("horses" — instr.) and *gońmy* ("let's chase") must be excluded from the domain of (9).

[4] The stress conditioning is true for the majority but not for all the speakers of cultural Polish. Some get [n] in slow speech even in words like *bank* and *tango*. For them rule (9) is simpler and refers only to native words.

[5] Words like *Irenka* ("Irene" — dimin.), *ganku* ("porch" — gen.) have [n] and not [ŋ] due to the presence of /e/ in the underlying representation — cf. Rubach (1974).

Before we proceed, it is necessary to look at the distinctive feature matrices for the relevant sounds. With the assumption as made previously in English that [±distrib] is a relative feature, the distinctions are as follows:

	dental	alveolar	post-alveol.	alv.-palatal	palatal	velar
anter	+	+	−	−	−	−
coron	+	+	+	+	−	−
back	−	−	−	−	−	+
distrib.	−	+	−	+	+	+
high	−	−	−	+	+	+

The detail noncontinuant assimilation rule covers the cases discussed under point (4) and disambiguates those in (2b) and (2e):

$$(10)\quad \begin{bmatrix} -\text{contin} \\ -\text{del rel} \\ +\text{coron} \\ -\text{high} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha\ \text{anter} \\ \beta\ \text{distrib} \end{bmatrix} \ \text{—}\ ([-\text{seg}])\ \begin{bmatrix} +\text{conson} \\ +\text{coron} \\ -\text{high} \\ \alpha\ \text{anter} \\ \beta\ \text{distrib} \end{bmatrix}$$

Rule (10) excludes [+high] segments both in the input and in the environment. It is necessary to make sure that [ń] does not change to [n] in *koń ten* ("this horse"), *pan ciągnie* ("you are pulling"), since in the former [n] is impossible and in the latter [ń] appears only as a phonostylistic variant in rapid speech. Clearly the information which we are trying to convey here is that for Polish the coronal region falls into two: a) dental — alveolar — post-alveolar, b) alveolo-palatal, and assimilations take place within each independently. Unfortunately, within the current feature framework there is no way of distinguishing these two articulatory areas otherwise than by the opposition of [±high]. This has two consequences: [ń] must be generated by the deep phonological rule, which makes the formalization more complicated (a variable on [high] in rule (9)), rule (10) enters into an ordering relation with detail palatalization — rule (11) below. Since [n] and [t] are postalveolar in *ten Chilijczyk* ("this Chilean"), *on dżinsy* ... ("he ... jeans"), *rząd chilijski* ("Chilean government"), etc. rule (10) must apply in spite of the fact that [č] and [j] are palatalized, i.e. [+high], in those words. To make the application of (10) possible we have to order detail palatalization later.

Before we pass on to formulating rule (11), let us look at some sample derivations:

krępy	*rękaw*	*dąć*	
/—n p—/	/r ɛ n k—/	/d o n ć/[6]	
m p	r e ŋ k	d o ń ć	Rule (9)

---

[6] The exact underlying representation for other sounds than those relevant to our discussion is not considered here.

miesięczny	*kunszt*	*mądry* ("clever")	
/—n č—/[6a]	/—n š t/	m o n d r—/	
$\underline{n}$ č	—	vacuous	Rule (9)
vacuous	$\underline{n}$ š t	m o n $\underline{d}$ r	Rule (10)
		m o $\underline{n}$ $\underline{d}$ r	Rule (10)

With the interaction of detail palatalization we have:

rząd chilijski	*pan czekał*	
/ž o n d # # č i—/	/p a n # # č e—/	
ž o n t # # č i	—	Unvoicing
ž o n $\underline{t}$ # # č i	p a $\underline{n}$ # # č e	Rule (10)
ž o $\underline{n}$ $\underline{t}$ # # č i		Rule (10)
ž o $\underline{n}$ $\underline{t}$ # # č' i		Rule (11)

The detail palatalization in Polish tak$_{es}$ the form of (11):

$$(11) \quad [+\text{conson}] \rightarrow \begin{bmatrix}+\text{high}\\ -\text{back}\end{bmatrix} \Big/ \; — \; ([-\text{seg}]) \begin{bmatrix}-\text{conson}\\ +\text{high}\\ -\text{back}\end{bmatrix}$$

Rule (11) is very general and natural: palatalization takes place before /i, j/ within words and across word boundaries. It accounts for a large number of surface forms: [p'] in *spierać się* ("argue"), *chleb i woda* ("bread and water"), [b'] in *zbierać* ("collect"); [t'] in *tiara* ("tiara"), *brat jest* ("brother is"); [d'] in *diabel* ("devil"); [c'] in *dyplomacja* ("diplomacy"), *piec i okno* ("the oven and the window"); [f'] in *sfinks* ("sphinx"), *mów jeszcze* ("speak on"); [v'] in *związać* ("bind"); [s'] in *sinus* ("sine"), *głos jego* ("his voice"), [z'] in *Azja* ("Asia"), [š'] in *mysz i kot* ("a mouse and a cat"); [n'] in *on idzie* ("he is going"), [r'] in *trio* ("trio"), *wybór jedzenia* ("a choice of food"), etc.

It should be noted that palatalized [s', z', n'] are not equivalent to [ś, ź, ń] — although both are [+high] the former are [+anter, —distrib] and the latter [—anter, +distrib].

In the case of back consonants [x, k, g], which in themselves are [+high], the change consists in fronting the sounds from the velar to the palatal region, viz. *Chiny* ("China"), *dach i podłoga* ("the roof and the floor"), *leki* ("medicines"), *lek jest* ("the medicine is"), *rogi* ("horns"), etc.[7]

In all fairness, we should remark that (11) is not the only i-palatalization rule (cf. Gussmann 1973; Laskowski 1975): a different rule must introduce [p', m', l' ...] in *śpi* ("he is sleeping"), *czasopiśmie* ("journal" — loc.), *rośli* ("they grew"), *wieźli* ("they were bringing"), etc. This other rule is necessary to provide the environment for the change from /s, z/ to [ś, ź] in these words, cf. the alternation with *spać, czasopismo, rosły, wiozły*. Quite clearly this other rule cannot be the same as (11): *wysp jest* ("there are islands") *czasopism i* ("the journals and") contain the palatalized variants of [p] and [m] but the preceding fricatives do not change to [ś, ź].

[6a] see footnote 6.

[7] Palatal [k', g'] may also arise from a different rule: /k, g/ are palatalized before some /e/'s, cf. *kiedy* ("when"), *rogiem* ("horn" — instr.), *drogie* ("expensive" — pl.). This rule is in part conditioned by nonphonological factors (word origin, case).

Although, as argued above, (11) must follow (10) it must precede another detail rule which assimilates back consonants:

$$(12)\quad \begin{bmatrix} +\text{conson} \\ +\text{back} \\ \alpha\ \text{contin} \end{bmatrix} \rightarrow [-\text{back}] \;\Big/\; \text{—}\ ([-\text{seg}]) \begin{bmatrix} +\text{conson} \\ -\text{coron} \\ -\text{anter} \\ -\text{back} \\ \alpha\ \text{contin} \end{bmatrix}$$

While (10) is limited to coronal segments, (12) does not extend further than the noncoronal and nonanterior region (we have [k] and not [k'] in *brak piasku*, "lack of sand", *rak wiązadeł głosowych*, "the cancer of vocal cords"). It makes back consonants palatal before [x', k', g'] with the provision that the inputs and the environments agree in continuity: *tych Chinczyków* ("these Chinese" — gen.), *lęki* ("fears"), *lekki* ("light"), *miękki* ("soft"), *brak gimnastyki* ("the lack of exercise"), *bank kierowany*[8] ("the bank directed"). If the continuity condition is not fulfilled, (12) does not apply: *tych kierowników* ("these managers" — gen.), *brak higieny* ("the lack of hygene"), where in slow speech the first word in each pair ends with a velar rather than palatal consonant.

To see how (11) and (12) interact, let us go through some sample derivations:

tych Chinczyków	*miękki*	
/—x ## x i—/	/—e n k k + i/	
—	e ŋ k k + i	Rule (9)
x ## x' i	e ŋ k k' + i	Rule (11)
x' ## x' i	e ŋ k' k' + i	Rule (12)
	e ŋ' k' k' + i	Rule (12)

So far we have been concerned with the interaction between detail rules and obligatory phonological rules. Some more insight into the nature of detail rules can be gained if we look also at phonostylistics, i.e. at the area of optional or rather stylistically constrained rules. For the brevity of discussion let us consider only two or three cases.

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[8] This and other assimilations are obligatory in all tempos of speech except hesitant conversation. If the latter is meant then no rule applies across word boundaries since hesitation has the same effect as pausing.

English has a phonostylistic rule of strident assimilation[9]. It turns [s, z] to [š, ž] in the environment of palato-alveolars [š, ž, č, ǰ]: *apprenticeship*, *misshapen*, *question*, *this show*, etc. Once the slow speech [s] is changed to [š] in words like *acquaintanceship*, a detail assimilation rule must apply altering the place of articulation of [n] from alveolar to palato-alveolar:

acquaintanceship

Slow speech form:	—t ə n s # š i p	
	t ə n š # š i p	Strident Assimil.
	t ə n̠ š # š i p	Rule (8)

Similarly in Polish, strident assimilation may take place before postalveolars [š, ž, č, ǰ]. As a result of it, [s, z, t, d] are changed to [š, ž, č, ǰ]: *rozszerzyć* ("broaden"), *zrzec się* ("renounce"), *oświadczyć* ("declare"), *drzwi* ("door"), *pod drzwiami* ("under the door"), etc. If the rule changes [z] to [ž] in *on zdrzemnął się* ("he took a nap"), a detail rule must further apply specifying the place of articulation of [n] as postalveolar and not dental:

on zdrzemnął się

Slow speech form:	o n # # z # d ž—	
	o n # # z # ǯ ž	Strident Assimil.
	o n # # ž # ǯ ž	Strident Assimil.
	o n̠ # # ž # ǯ ž	Rule (10)

The last example is a well known rapid speech assimilation of [n] (cf. for instance, Benni 1964 : 55): it assumes the place of articulation of the following consonant, viz. *ten pan* ("this gentleman"), *on ciągnie* ("he is pulling"), *on go uderzył* ("he hit him). The rule is general and specifies only the main articulatory regions. If necessary, further distinctions are provided by detail rules:

on kieruje ("he is directing")

Slow speech form:	o n # # k'—	
	o ŋ # # k'	Nasal Assimilation
	o ŋ' # # k'	Rule (12)

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[9] The formalized version along with the discussion of this and other phonostylistic rules can be found in Rubach (1974).

The analyses presented in this paper throw some light on the nature of detail rules of consonantal assimilation. The following seem to be the most interesting characteristics:

— detail rules are generally constrained to act within certain articulatory regions;

— in their form and domain of application they are usually broader than corresponding phonological rules: they apply to larger classes of segments and typically they are not blocked by any boundaries;

— the existence of detail rules permits to state deep phonological rules more generally;

— ordering statements must be made not only about deep phonological but also about detail rules, note, however, that in all the cases discussed in this paper the ordering relation is natural — it is of the feeding type;

— detail rules are typically exceptionless and they function as well-formedness conditions: in this capacity they apply not only in obligatory but also in phonostylistic derivations.

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OVERKILL IN PHONOLOGY

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In the analysis of causal and/or rapid speech phonology one typically finds cases where more than one rule could apply producing the same result. Such situations, described as overkill, allow to make predictions about the obligatoriness of certain phonetic forms and about sound change in lexical representations.

Recently much attention has been given to the problem of predicting the probability of occurrence of phonetic forms which result from the application of optional (or rather stylistically constrained) rules. Many aspects of this question have been studied in detail by Labov in his numerous papers, some of them recently collected in Labov (1972). There is, however, one important case of probability predictions which so far not received enough attention. In the analyses of phonostylistic (i.e., casual and/or rapid speech) rules, one typically finds situations where a certain phonetic form may be derived not by one but by several otherwise independent rules. In other words, certain forms are in an overkill[1] situation: even if one rule has failed to apply a change may occur due to the application of some other rules.

In this paper I shall look at some overkill situations and suggest the predictions that they make. These concern the probability of occurrence of certain phonetic forms and the directions in sound change. The data[2] are drawn from the analyses of casual and/or rapid speech in British English and Polish. It is crucial for the point which I shall be trying to make that the rules which lead to overkill situations are indeed independently motivated. Therefore, we must first look at each rule separately.

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[1] The term has been suggested to me by Arnold Zwicky.

[2] The data are based not only on the descriptions available in the literature (e.g. Gimson 1962) but also on my observations and a number of recordings made with native speakers. For Polish most of the recordings were obtained from the Polish Committee on Radio and Television. Some ambiguous cases were checked for me at the University of California at Berkeley by William Ewan whom I would like to thank here (a small digital computer was used). A more detailed account of both the data and the theoretical issues may be found in Rubach (1974).

Apart from glottalization, British English has three phonostylistic rules of dental stop deletion. The most important among them has the form of (1):

$$(1)\quad \begin{bmatrix} +\text{obstr} \\ -\text{contin} \\ +\text{coron} \\ +\text{anter} \\ \alpha\text{voiced} \end{bmatrix} \rightarrow \text{Ø} \Bigg/ \begin{bmatrix} +\text{cons} \\ \alpha\text{ voiced} \end{bmatrix} (\#) - ([-\text{seg}])\ [-\text{syll}]$$

Rule (1) deletes [t, d] in words such as: *bankruptcy, Astbury, shifts, facts, postcard, soundness, groundless, wildly* (only in very rapid speech), *next station, old man, left wheel, west region*, etc. It applies across all types of boundaries and thus includes inflectional [t, d]: *finished late* [finiš#t# #lejt], *dined together* (dajn#d# #təgeðə][3]. Rule (1) does not apply in the environment of syllabics **left arm, *pistol, *round opening, *bundle*. Furthermore, the preceding consonant must agree in voice with the dental stop: (1) simplifies the cluster in in *bands, send back* but not in **pants, *sent back*. Neither restriction holds for rule (2):

$$(2)\quad \begin{bmatrix} +\text{obstr} \\ -\text{contin} \end{bmatrix} \rightarrow \text{Ø} \Big/ \text{CC} - \# (\#) [+\text{seg}]$$

By this rule [t, d] may delete in *a thousand other, second opening, inconsistent of you, unpleasantly, important argument*, etc. (checked instrumentally) where the sequence [ən] has been turned to syllabic [n̩] by a different rule.[4] The requirement of a word boundary in the right environment is motivated by non-application of (2) in cases such as: *simpleton, instinctive, Campden*, etc.

Finally, there is a rule which deletes dental stops in nonlexical items: *can't, don't, won't, shan't, and*, etc. The environment here is least restricted:

$$(3)\quad [-\text{contin}] \rightarrow \text{Ø} / \text{C} - \#[+\text{seg}] \atop \qquad\qquad\qquad\qquad [-\text{lexical}]$$

Rule (3)[5] permits deletion before any segment, be it a consonant or a vowel, as in *I can't do that, I can't open this door*, etc.

In the light of these rules consider cases such as:

a) *secondly, a thousand people, husbandly*

b) *wouldn't do, shouldn't say, wasn't prepared, didn't realize.*

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[3] Kiparsky (1972:197) draws attention to the conservation of functional distinctions; i.e., when having a morphological function [t, d] are less likely to drop.

[4] Conceivably, for some speakers, the rule environment could be $\left\{\begin{matrix} [+\text{cons}] \\ \begin{bmatrix} +\text{syll} \\ -\text{stress} \end{bmatrix} \end{matrix}\right\} \text{C} - \#$, i.e., the prior application of the syllabicity-imposing rule would not be a requirement.

[5] The argument that (3) could probably be collapsed with (2) is beside the point; in any notational version they will always stand as two separate rules.

Notice that the words in (a) may lose their dental stop either by (1) or by (2); those in (b) are inputs to both (2) and (3). The items in question are in an overkill position. Even if one rule fails to apply they can be simplified by another rule.

A still more complex situation obtains with phrases such as *shouldn't talk*, *wouldn't touch*, *wasn't terrible*. It is clear thus far that in each case two rules may apply. Notice, however, that apart from dental stop deletion rules English has a degemination rule.[6] As relevant to this discussion[7], it takes the form of (4):

$$(4)\ \begin{bmatrix} +\text{obstr} \\ \alpha\,\text{F} \end{bmatrix} \rightarrow \text{Ø} \Big/ - (\#) \begin{bmatrix} \text{obstr} \\ \alpha\,\text{F} \end{bmatrix}$$

Rule (4) allows phonostylistic cluster simplification in *dissimilar*, *misspell*, *misstate*, *of voice*, *with the* (cf. Kruisinga 1925:113). Since auxiliaries are separated from main verbs by a single word boundary (4) will also apply to *shouldn't talk*, etc. Thus, we arrive at a triple overkill:

Slow speech from: š u d n̩ t # t—
Phonostylistic form: š u d n # t— by (2) OR (3) OR (4).

Many similar situations obtain in Polish.[8] For a change, let us consider not dental stop deletions but strident cluster simplifications. Relevant here are two strident deletion rules. First, let us look at them separately.

Word-finally a cluster of two strident consonants may be simplified if the next word begins with a consonant:

$$(5)\ [+\text{strid}] \rightarrow \text{Ø} \Big/ \begin{bmatrix} +\text{strid} \\ -\text{lab} \end{bmatrix} - \#(\#)\,\text{C}$$

The rule accounts for a large number of cases:

a) [ść]→[ś] *dość tego* ("enough of this"), *pójść trzeba* ("one should go"), *iść razem* ("to go together")
b) [šč]→[š] *deszcz pada* ("it is raining"), *nie wrzeszcz tak* ("don't scream like this , *odchwaszcz pole* ("weed the field")
c) [sc]→[s] *miejsc nie ma* ("we are sold out")
d) [sf]→[s] *glupstw takich* ("such absurdities" — gen. pl), *warstw społecznych* ("social classes" — gen. pl.), *księstw polskich* ("Polish dukedoms" — gen. pl.)
e) [cf]→[c] *bogactw naturalnych* ("natural resources" — gen. pl.), *bractw*

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[6] It is a phonostylistic reflex of an obligatory degemination rule, the one for *assist*, *assemble*, *appear*, *attest*, etc.

[7] Actually the rule is broader, cf. Rubach (1974).

[8] There are more cases of overkill in English but they are entirely parallel to those discussed above, hence, we shall not go into any other analyses.

studenckich ("students' fraternities" — gen. pl.), *województw północnych* ("northern districts" — gen. pl.).

In (d) and (e) rule (5) applies after [t] has been deleted. Corresponding to the above are strident deletions of voiced consonants as in *jeść dobrze* ("to eat well"), *płaszcz brązowy* ("brown coat"), *miejsc dużo* ("many seats"), *kłamstw wielu* ("many lies" — gen. pl.), *bogactw dużo* ("many riches" — gen. pl.) where voicing is a result of phonological voice assimilation rule. Rule (5) does not apply if the preceding consonant is a labial strident: **szewc ten* [fc] ("this shoemaker"), **sprawdź to* [fć] ("check this"). Furthermore, a strident cannot be deleted if the cluster is word-medial (*zmarszczka* [ščk], "wrinkle"), or if the following word begins with a nonconsonantal sound: *przepaść ogromna* ("a large precipice"), *barszcz odgrzany* ("warmed up beetroot soup") etc. Neither can the rule apply if the preceding consonant is nonstrident: *puls szybki* ("rapid pulse"), *tarcz tych* ("these shields" — gen. pl.).

Along with (5) there is another strident deletion rule:

$$(6)\quad \begin{bmatrix}+\text{strid}\\-\text{lab}\end{bmatrix} \rightarrow \text{Ø} \Big/ \begin{bmatrix}-\text{contin}\\+\text{del rel}\end{bmatrix} - \left[\begin{Bmatrix}\#\\+\text{cons}\end{Bmatrix}\right] \qquad \begin{matrix}(a)\\(b)\end{matrix}$$

This rule deletes any strident coronal (i.e., not [f] of *bogactw* "riches" — gen. pl.) if it appears after an affricate. The environment of (6) is very broad: case (a) permits deletion before a word boundary (irrespective of whether the segment which follows is a consonant or a vowel), or before a pause: *wewnątrz ogrodu* ("in the garden"), *patrz* ("look" — imper.), *mistrz* ("master"), case (b) accounts for word-medial simplifications: *patrzmy* ("let's look"), *zewnętrzny* ("outer"), *drzwi* ("door"), *trzcina* ("cane"), etc. If the boundary is only a "plus" and a vowel follows deletion does not take place: *mistrz+a* ("master" — gen. sg.), *patrz+y* ("he looks"). Rule (6) is preceded by a general strident assimilation rule which turns [t, s] to [č, š] in the environment of [č] or [š] so that the final cluster of e.g. *mistrz* is changed from slow speech [stš] to [sčš] and ultimately to [ščš].[9]

Bearing in mind these two rules, consider cases such as: *patrz na* ("look at"), *wewnątrz samochodu* ("inside the car"), *zaostrz koniec* ("sharpen the end" — imper.). *burmistrz powiedział* ("the mayor said"). In each word final [čš] may be simplified to [č] either by (5) or by (6) — we gain another very clear instance[10] of an overkill situation. As was the case in English, for some phrases the power of overkill may be further increased by a rule of degemination. That portion of the rule as pertains here takes the form of (7):

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[9] Strident Assimilation already applies in quite slow and careful speech. Its application must be iterative since both [sčš] and [ščš] are not only possible but also frequent pronunciations. Interestingly, rule (6) together with Strident Assimilation may produce homophony of otherwise distinct words: in casual and/or rapid speech *wietrzny* [tšn] ("windy") is pronounced exactly in the same way as *wieczny* [čn] ("eternal") where in the former [t] has been assimilated to and [š] has been deleted.

$$(7)\quad \begin{bmatrix} +\text{cons} \\ \alpha\,\text{F} \end{bmatrix} \rightarrow \emptyset \Big/ [+\text{obstr}] \text{—} ([-\text{seg}]) \begin{bmatrix} +\text{cons} \\ \alpha\,\text{F} \end{bmatrix}$$

Rule (7) is independently necessary to handle deletion in words such as: *puśćcie* [śćć] ("let go"), *koszt towaru* [št] ("the cost of a commodity"), *pocisk który* [sk] ("the missile which"), *czasopism modnych* [sm] ("fashionable journals" — gen. pl.), *pomyśl logicznie* [śl] ("think logically").

If now, in the light of rules (5), (6) and (7), we consider phrases such as *wewnątrz szafy* [n čš # #š] ("inside the wardrobe"), *burmistrz szukał* [ščš # #š] ("the mayor was looking for") we can clearly see that the [š] of [čš] may be dropped by either of the above three rules — we have a triple overkill:

burmistrz szukal

Slow speech form:	-s t š # #š-	
	s č š # #š	Strident Assimilation
Phonostylistic forms:	š č š # #š	Strident Assimilation
	š č # #š	Rule (5) OR (6) OR (7)
	š # #š	Rule (5)

Interestingly, in a phrase like *burmistrz czekał* ("the mayor was waiting") we have overkill at two stages in the derivation:

Slow speech form:	-s t š # #č-	
	s č š # #č	Strident Assimilation
Phonostylistic forms:	š č š # #č	Strident Assimilation
	š č # #č	Rule (5) OR (6)
	š # #č	Rule (5) OR (7)

Let us now have a look at the theoretical implications of overkill. In order to see more clearly what is happening consider the following phrases in the hierarchy as they appear:

English:

a) *can't open* [nt #ow] — no overkill: [t] may be dropped only by (3)
b) *shouldn't say* [dn̩t #s] — overkill: [t] deletion either by (2) or by (3)
c) *shouldn't tell* [dn̩t #t] — triple overkill: rules (2), (3) and (4)

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[10] The clarity of these examples rests upon the fact that all changes take place in quite slow speech and are characteristic of all speakers of Polish. The deletion of [š] in this context is almost obligatory.

Polish:

a) *burmistrz otworzył* [ščš # #o] ("the mayor opened"), — no overkill, [š] deletion only by (6)
b) *burmistrz powiedział* [ščš # #p] ("the mayor said") — overkill for [š] deletion (either (5) or (6)), no overkill for [č] deletion (only (5) may apply)
c) *burmistrz czekał* [ščš # #č] ("the mayor was waiting") — overkill for both [š] and [č] deletion (rules as in the above derivation).

Notice that overkill corresponds exactly to the expectation about the probability of deletion. Thus, if we compare cases of (a) through (c) it becomes apparent that cluster simplification is correlated with overkill: [t]-drop in *shouldn't tell* is far more likely than in *can't open* (i.e., in the former case deletion will take place in all styles and tempos of speech except very careful and monitored pronunciation). An exact parallel situation obtains in the Polish examples: [ščš] simplification in (c) is almost obligatory. Thus overkill makes very precise (hence easily falsifiable) predictions about the probability of occurrence of certain phonetic forms. The fact worth stressing is the following: if phonostylistic rules have been correctly formulated for some classes of cases, the behavior of other phonetic forms can be predicted, and these predictions follow from the theory. For the forms which are subject to overkill field evidence is only needed to confirm and not to discover their probability of occurrence. Furthermore, overkill provides a theoretical basis for plausible hypotheses about sound change. A good example is the English phrase *used to*. For the analysis of present-day speech *used to* must be regarded as entirely unrelated to *use* or *used*. This conclusion follows not only from the semantic differences but also from the phonological shape. Unlike *used*, *used to* can never have a voiced cluster in any style of speech. In short, *used to* is a separate entry in the lexicon. Furthermore, unlike equally fossilized *got to*, *used to* is a case of phonostylistic overkill: the final [t] may be dropped either by (1), (3) or (4). On the basis of this heavy overkill one can predict that a restructuring of the underlying representation may take place. Once the [t] is never attested phonetically there will be no evidence to postulate it underlyingly. Notice that with respect to making sound change predictions *shouldn't tell* is not parallel to *used to*: firstly in the former the improbability of [t] preservation is true only in some contexts and secondly the [t] in this phrase is part of the *not* morpheme which appears also in its uncontracted form. Thus, as long as *not* preserves its [t], there will always be evidence to postulate an underlying /t/ in *shouldn't*. We may want to delete this /t/ obligatorily, say, by a phonological rule which has been abstracted out of the overlapping phonostylistic rules, but that is a different matter.

A very similar situation is found for Polish *zamiast* ("instead").[11] The final [t] may be dropped by either of the two dental stop deletion rules. The first of them, as relevant here, has the form of (8):

$$(8)\qquad \begin{bmatrix}-\text{contin}\\ +\text{coron}\\ +\text{anter}\end{bmatrix} \rightarrow \text{Ø} \Big/ [+\text{obstr}] \;—\; \#(\#)\;C$$

Rule (8) is necessary to delete [t, d] in ***tekst byl*** ("the text was"), ***most powietrzny*** ("air lift"), ***przyrost naturalny*** ("birth rate"), ***zjazd lingwistyczny*** ("linguistics convention"), ***baszt miasta*** ("city towers" — gen. pl.). ***list do pana*** ("a letter for you"), etc. It correctly excludes stop deletions before nonconsonantal segments: *list otwarty* ("open letter"), *koszt jedzenia* ("the cost of food").

The other dental stop deletion rule handles cases precisely like *zamiast*:

$$(9)\qquad \begin{bmatrix}-\text{contin}\\ +\text{coron}\\ +\text{anter}\end{bmatrix} \rightarrow \text{Ø} \Big/ [+\text{obstr}] \;—\; \#[-\text{lexical}]$$

Rule (9) refers to the class of words which are marked in the dictionary as nonlexical. The deletion is possible here before a word boundary or even a pause (without an intervening # these words are not followed by a consonant). A good example is *jest* ("is"): it may lose its [t] (or [d] by voice assimilation) in all cases: *jest dobrze* ("it is all right"), *jest oczywiste* ("it is obvious"), *co to jest?* ("what is this?") expect when followed by a vowel without an intervening word boundary: *jest+em* ("I am"). Even without overkill the future loss of /t/ in *zamiast* (the word does not have any inflected forms) is quite likely. This may be inferred from the broadness of environment in rule (9). When we realize that (9) is additionally supported by an overkill from (8) it becomes clear why *zamiast* has phonetic [t] only in very careful and monitored speech. As with *used to*, it is highly probable that /t/ will soon be not attested phonetically in any style of speech. With this change all the motivation for postulating underlying /t/ will be out of reach — a restructuring in the lexical representation will undoubtedly ensue.

In conclusion, it is worthwhile stressing that the examples discussed in this paper are not by any means isolated cases. Overkill is a typical situation in considerations of casual and/or rapid speech. The theoretical import of overkill seems worthy of notice: being an unavoidable consequence of the nature of phonostylistic rules, overkill allows to make plausible predictions about the probability of occurrence of certain phonetic forms and, in some cases, about the directions in which the restructuring of underlying representations will proceed.

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[11] Although strident deletion examples show heavy overkill a change in the underlying representation is not very likely for many words: *burmistrz*, for example, will preserve its underlying cluster since it always surfaces with no deletion in inflected forms of the word — *burmistrza* (gen. sg.). *burmistrzu* (voc. sg.), etc.

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STRESS AND WORD ORDER IN ENGLISH AND POLISH:

ERRORS IN STRESS PLACEMENT AT THE LEVEL OF SYNTACTIC CONSTITUENTS AS MADE BY POLISH STUDENTS OF ENGLISH

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This paper investigates some aspects of the interdependence of stress and word order in English and Polish. It will be attempted to demonstrate that incorrect stress placement in the utterances of Polish learners of English is in a number of cases due to the different way in which word order rules operate in the two languages. Simultaneously, the other side of the problem will be commented upon, i.e., the question of whether and how errors in word order, not uncommon in the performance of Polish students, may depend on the insufficient knowledge of the powerful role of English stress in signalling those meanings which are expressed in their native language mainly by specific ordering of sentence elements.

In analysing mistakes in stress assignment it is necessary to realize that mistakes in this area are not all of the same order. The two commonly used headings under which stress errors may be grouped are "word stress" and "sentence stress". In generative phonology word stress is assigned by the Main Stress Rule (MSR) and Compound Rule (CR), while sentence stress, or, more precisely, the primary stress of the phonological phrase, is assigned by the Nuclear Stress Rule (NSR) (Chomsky and Halle 1968). It appears, however, that the division of mistakes into those that occur in the area of MSR and CR application and those that violate NSR is too general. To demonstrate that certain mistakes cannot be lumped together unconditionally, let us consider the following English sentences with erroneous stress placement of the type that is feasible and, in fact, frequently encountered in the utterances of Polish learners:

(1) Good aftérnoon.
(2) I visited my inválid mother.
(3) He is an ímportant man.

(4) The impórt of gold is forbidden.
(5) Miss Kowalski is our Ènglish téacher.
(6) He is a dàncing máster.
(7) I've got a brìck-ŕed dréss.
(8) Come here, Tóm.
(9) We know all about it, he sáid.
(10) Give me the blue óne.
(11) He came for ít.
(12) (These books belong to him now) He's paid for thém.
(13) (You needn't introduce him to the Joneses) He's already met thém.
(14) (We didn't catch any fish) But we tried to cátch them.
(15) (But I didn't do it!) I know you didn't dó it.
(16) There are some pictures on the walls of my róom.
(17) It's John I came to sée.

In Examples (1) - (4) there is a violation of the MSR, in (5) - (7) — of the CR, in (8), (9) and (14) - (17) — of the NSR, while in (10) - (13) non-application of the clitic readjusting convention is the source of errors.

In polysyllabic words (including what Kingdon (1958) calls "Romanic-type compounds" and "Greek-type compounds") the mistakes are due to the relative complexity of the English MSR as opposed to the simple penultimate MSR of Polish (cf. Krzeszowski 1970 : 68). The mistakes are mainly those in phonetic naturalness and accuracy, although they may lead to misunderstandings (Ex. (2) and (3)) and, if too numerous, may become a hindrance in communication. Example (4) is interesting because it contains the word *import*, which belongs to the class of words with the so-called "distinctive stress" (*ímport* — N, *impórt* — V). However, as Haas (1966 : 138) says, "accentual patterns do not so much account for the few cases in which they are distinctive as on account of the great regularity with which they mark important grammatical categories" (cf. the treatment of these in the MSR of Chomsky and Halle 1968). Hence the mistake in (4) is not of the same gravity as in the Russian *múka* for *muká*, because there are other signals apart from stress to show that in (4) *import* is a N, not a V.

In the English-type compounds ambiguities are more likely to occur (cf. **Ex**. (5) $\overset{1}{\textit{English}}\ \overset{3}{\textit{teacher}}$ (N) vs $\overset{2}{\textit{English}}\ \overset{1}{\textit{teacher}}$ (NP)), and mistakes are especially frequent if the compounds are spelt separately, thus $\overset{1}{\textit{red}}\textit{-skin}$ is less likely to be pronounced $\overset{2}{\textit{red}}\ \overset{1}{\textit{skin}}$. Note that (6) is ungrammatical if *dancing master* is treated as NP (Adj+N), though a sentence like *Look at the dancing master* is merely ambiguous (in the written form). The question *N or NP?* (CR or NSR?) is not difficult to resolve, yet mistakes made by Polish learners in this area are notoriously frequent (a tendency for over-all NP interpretation, undoubtedly interference from Polish). On the other hand, the CR variants appear to be quite numerous and often complex (e.g. *in* $\overset{3}{\textit{Pure}}$ $\overset{2}{\textit{Food}}$ *and* $\overset{1}{\textit{Drug}}$ $\overset{3}{\textit{Law}}$) and require memorization just as polysyllabic words (see Lees (1960), (1970) and also Kingdon (1958) for examples of various patterns). Another problem, which is on the borderline of the CR and NSR operation, is that exemplified in (7), where $\overset{2}{\textit{brick}}$-$\overset{1}{\textit{red}}$ should have changed its stress pattern for "rhythmical purposes" (Kingdon 1966 : 181) into $\overset{2}{\textit{brick}}$*-red* (correct: *I've got a* $\overset{2}{\textit{brick}}$*-red* $\overset{1}{\textit{dress}}$, but predicatively: *My dress is* $\overset{2}{\textit{brick}}$-$\overset{1}{\textit{red}}$).

Examples (8) and (9) take us into the domain of NSR application. They will not, however, be analysed together with the other instances of incorrect nucleus location. The reason for such treatment is in the fact that the mistakes in the two examples are not due to any interference from Polish, as vocatives (e. g. in (8)), appositives, and parenthetical expressions (as in (9)) have comparable stress contours in the two languages (cf. $\overset{1}{\textit{Chodź}}$ $\overset{2}{\textit{tutaj}}$, $\overset{0}{\textit{Tomku}}$, *Wiemy o tym* $\overset{1}{\textit{wszystko}}$, $\overset{0}{\textit{powiedzial}}$ and $\overset{1}{\textit{Come}}$ $\overset{2}{\textit{here}}$, $\overset{0}{\textit{Tom}}$, *We know all* $\overset{1}{\textit{about}}$ *it, he* $\overset{0}{\textit{said}}$). The source of mistakes of this sort is, possibly, over-generalization in the use of the English NSR in its simplest form, i.e. "Place the primary stress on the rightmost stressable constituent/element". On the other hand, since these mistakes occur more frequently in reading than in ex tempore speech (though the reading habits are often transferred into speech, especially in the case of vocatives), their source may be in the inadequate performance demonstrated in the learners' reading in their native language. Baird (1967 : 134) says in this context that one of the factors which "must have a direct bearing on the problem of teaching any foreign language is the methods by which the skills of their mother tongue are customarily taught. The ways in which children are taught to read their mother tongue are bound to influence both their reading and their pronunciation of the foreign language...". It is, in fact, often difficult, especially in the case of stress and intonation analysis, to assess the proportion of the "linguistic transfer" and the "elocutionary transfer" and this problem will have to be kept in mind throughout the discussion to follow.

One of the areas where mistakes of Polish learners are particularly noticeable is the stress (or non-stress) of clitics. Since this problem has been discussed by the present author more extensively elsewhere (Ozga 1974), let us concentrate on clitic pronouns "with reduced stress consequent upon their anaphoric status within the context" (Stockwell 1972 : 88), represented in examples (10) - (13). In (10) and (11) it is not necessary to provide sentences containing coreferential NP's because the forms *one* and *it* are in general used clitically only (though cf. *She's got ĭt* vs *He came for thĭs*) and the rather special, though possible, emphatic repetition in *I said "Give me the blue ONE"*. In Polish, mistakes of a comparable sort would occur in **Daj mi tĕn niebieski*, **Zabral g̈o*. In the last example the clitic character of the pronoun is signalled even by the spelling, since the stressed form requires the word *jego* (correct: *Zabral jĕgo*).

In (12) and (13) the clitic character of the pronoun *them* is determined by the context, so the sentences should read:

...He's $\overset{1}{\textit{paid}}$ *for them.*

...He's already $\overset{1}{\textit{met}}$ *them.*

(12) and (13) might be correct if the context was different and *them* would be emphatic or contrastive: *He's paid for thĕm* (not any other), *He's already met thĕm* (not us). Note that *them* referring to inanimate nouns will be used emphatically (as above), but not contrastively, where *those* would be preferable, thus: (...I don't think he's paid for the French books) *He's paid for thŏse* (?them) (*but not for the Italian ones*). This is true of Polish as well: *Zaplacil za tĕ* (?nie), *nie za tamte*.

The incorrect stress placement in sentences with anaphoric pronouns may be due (apart from ,,faulty rhetoric") to the fact that in Polish such pronouns are regularly fronted:

(13a) (...Nie trzeba go przedstawiać Jonesom) *On już ich* $\overset{1}{\textit{poznal}}$ (preferred to *On już* $\overset{1}{\textit{poznal}}$ *ich*), so as to allow the important word (*poznal*) to appear in the prominent final position (Doroszewski 1972: 255). Since, however, personal object pronouns are enclitic and cannot appear in the absolute initial position, they can only be fronted if there is a constituent to which they can attach. Thus fronting in (12a) is impossible:

(12a) (...Te książki należą teraz do niego). $\overset{1}{\textit{Zaplacil}}$ *za⁀nie*. cf. **Za nie* $\overset{1}{\textit{zaplacil}}$. The initial position of the *Prep+Pron* here can only be correct if *za nie* is stressed: *Za⁀nie zaplacil*, (*za żadne inne nie*).

The above example suggest that word order may appear crucial in the analysis of errors in stress, if it is assumed that incorrect stressing of English enclitic pronouns is in some way connected with the fact that such pronouns are not used finally in Polish and that equivalent sentences in Polish have the nuclear stress on the final element. To analyse the problem further let us consider the following sentences:

(12b) (... These books belong to him now) *He's* $\overset{1}{\textit{paid}}$ *for the books.*

(13b) (... You needn't introduce him to the Joneses) *He's already* $\overset{1}{\textit{met}}$ *the Joneses.*

In these examples *the books* and *the Joneses* are anaphoric elements like *them* in (12) and (13), but they are less obvious candidates for de-stressing becuase they are non-prominal. But as Stockwell (1972 : 88) points out:

> It is true that coreferential noun phrases in a sentence require destressing of the second NP, in general, even if the second NP is not an ordinary pronoun: *I voted for Eisenhower even though I didn't much C A R E for the general.* The phenomenon of anaphora is closely linked with those of stress reduction and contour-center location. In all such cases, I believe it can still be maintained that there is a 'normal' (non-emphatic) reading which includes, as part of the specification of 'normal', this kind of anaphoric destressing, and that further juggling of the contour center produces a reading which must single out for emphasis, by virtue of its contrast with the normal reading, some otherwise unpredictable item for stress/pitch highlighting (=emphasis) ... ... part of the function of any rules that deal with coreference is, at the very least, to mark repeated coreferential items as [—Contour Center], or some such specification, so that the basic rule of normal contour-center placement, roughly 'Place the main stress (=contour center) on the last stressable item to the right', can apply correctly in the presence of non-pronominal anaphoric elements".

Thus in (12b) and (13b) *the books* and *the Joneses* have to be marked (— Contour Center). The example given by Stockwell is more convincing than (12b) and (13b) because *Eisenhower* is replaced by *the general* (cf. **I voted for Eisenhower even though I didn't much care for Eisenhower*, with Equi-NP). It is the occurrence of the Equi-NP in (12b) and (13b) that makes the sequence artificial. A sequence like *We came to the* $\overset{1}{\textit{river}}$. *There were a lot of* $\overset{1}{\textit{fish}}$ *in the river* is more acceptable, though it sounds like a typical extract from a passage in a primer. If, however, (12b) and (13b) are separated from the preceding sentences, they become more natural, so in (12b) we might have:

"... These books belong to him now. At first he couldn't afford them. He sold his watch to get some money... etc. (So now,) *he's* $\overset{1}{\textit{paid}}$ *for the books*".

Note that in Polish the coreferentiality of *these books* in the first sentence and *the books* in the last would have to be expressed by word order: "Te książki należą teraz do niego ... ... (W końcu) *za książki* $\overset{1}{\textit{zapłacił}}$." (or $\overset{1}{\textit{zapłacił}}$ *za te książki*, but not **zapłacił za* $\overset{1}{\textit{książki}}$). This role of word order (and stress) in anaphoric processes as well as the notion definite/indefinite connected with them is discussed in Szwedek (1974:208) where he says: "... nouns with indefinite interpretation appear in sentence final position only (unless explicitly marked indefinite in some other way). That is why the pronoun *ten* is obligatory with a noun in this position if the noun is to be interpreted as definite. Nouns with definite interpretation appear in non-final position (again, unless explicitly marked otherwise)". The explicit marking can be effected by the stress pattern (as is discussed in Szwedek (1974)). The fact that definite nouns are fronted in Polish and the final (prominent) element is stressed may account for the undue stress of the anaphoric final nouns in English, as in (12b) and (13b).

The English stress pattern (12b) and (13b) is 1 (*paid, met*) — 3 (*books, Joneses*). In the Polish equivalents corresponding constituents receive a comparable degree of stress: 1 (*zapłacił, poznał*) — 3 (*książki, Jonesów*), but as the word order is different, a mirror stress pattern results: 3 - 1 (though 1 - 3 is also possible, especially in the example with *the Joneses*, as the noun is definite and does not require fronting: (3 - 1) *Już Jonesów poznał* and (1 - 3) *Już poznał Jonesów*).

Let us examine the possible correlations between the stress patterns of English and word order in Polish in other readings of (12b) and (13b).

In the most "neutral" reading with the nuclear stress on the right-most constituent:

(12c) *He's* $\overset{2}{\textit{paid}}$ *for the* $\overset{1}{\textit{books}}$ (e.g. in answer to *What has he done with the money?*)

(13c) *He's already* $\overset{2}{\textit{met}}$ *the* $\overset{1}{\textit{Joneses}}$ (e.g. in answer to *Which of the neighbours is he acquainted with?*)

the pattern is 2 - 1, and so it is in Polish, with the same word order:

(12d) $\overset{2}{\textit{Zapłacił}}$ *za* $\overset{1}{\textit{książki}}$.

(13d) $\overset{2}{\textit{Poznał}}$ *już* $\overset{1}{\textit{Jonesów}}$.

In the *emphatic* reading of (12b) and (13b) the stress pattern is 3 - 1:

(12e) *He's* $\overset{3}{\textit{paid}}$ *for the* $\overset{1}{\textit{books}}$.

(13e) *He's already* $\overset{3}{\textit{met}}$ *the* $\overset{1}{\textit{Joneses}}$.

which is a mirror pattern of (12b) and (13b) and the same pattern as in the Polish equivalents of the latter. This may account for the tendency of Polish learners to use this pattern in the English sentences with anaphora. It is interesting that in the English examples with anaphoric nouns the stress pattern is the mirror image of that of the emphatic sentences (*1 - 3* vs *3 - 1*) and not of the neutral pattern (**1 - 2* vs *2 - 1*). The reason for this may be that the anaphoric elements have the low-pitch ("tail") intonation and the elements that receive primary stress in the sentences containing them appear somehow emphatic (cf. the print-type of *care* in the Stockwell example (1972 : 6), though the pattern, as he claims, is neutral). However, "true" emphasis would in those cases be differently expressed: *He HAS paid for the books* (in the Simple Past: *He DID pay for the books*), though it is a complex problem that cannot be discussed in the present paper at any great length, so in the following sections the question of emphasis and contrast will be only superficially treated.

The Polish equivalents of (12e) and (13e) are:

(12f) *Za* $\overset{1}{\textit{książki}}$ $\overset{3}{\textit{zaplacil}}$.

(13f) $\overset{1}{\textit{Jonesów}}$ *już* $\overset{3}{\textit{poznal}}$.

Note that the Polish sentences with anaphora and the emphatic sentences have the same word order and they are distinguished by stress pattern only (*3 - 1* vs *1 - 3*). A direct translation of (12f) and (13f) into English (not an uncommon practice among the less advanced learners) would give:

(12g)* *For the* $\overset{1}{\textit{books}}$ *he's paid.*

(13g)* $\overset{1}{\textit{Joneses}}$ *he has met.*

Such emphatic fronting is possible in English only in the *it is* (*it's*) construction:

(12h) *It's the* $\overset{1}{\textit{books}}$ *he's paid for.*

(13h) *It is the* $\overset{1}{\textit{Joneses}}$ *he's already met.*

In fact, in Polish (12f) and (13f) would also be preceded — by the word *to*, which is equivalent to the English cleft construction with *it*: *To za książki zaplacil. To Jonesów już poznal.*

From numerous mistakes like those in (12g) and (13g) and the general survey of the English structures "preferred" by Polish learners it appears that the pseudo-cleft construction (and the clefting in general) is not sufficiently taught even at the advanced level (see Appendix). As a result, either sentences like (12g) and (13g) are given the wrong stress pattern — in speech, or — in writing — they are acceptable but do *not* refer to emphasis (understood as referring to the "positive" quality — "this and not anything else", cf. Kiefer 1970 : 129). Sentences *For the books he's paid* and *The Joneses he has already met* express *contrast* and have to be interpreted in the following way: *As far as the books are concerned, he's paid for them, As to the Joneses, ...* Thus (12g) and (13g) must have the following stress pattern, if they are to be acceptable:

(12i) *For the* $\overset{1}{\textit{books}}$ / *he's* $\overset{1}{\textit{paid}}$.

(13i) *The* $\overset{1}{\textit{Joneses}}$ / *he's already* $\overset{1}{\textit{met}}$.

The equivalent Polish sentences will also have two nuclei (1 - 1) and consist of two phonological phrases, (cf. (12f) and (13f)):

(12j) *Za* $\overset{1}{\textit{książki}}$ / $\overset{1}{\textit{zaplacil}}$.

(13j) $\overset{1}{\textit{Jonesów}}$ / *już* $\overset{1}{\textit{poznal}}$.

The foregoing discussion pointed to some possible sources of interference, which might lead to Polish learners' mistakes both in English stress and word order. Examples (16) and (17) will develop this theme further, but let us first examine (14) and (15). It cannot be said that they are suitable readings in the contexts supplied (or at least they are not neutral, but marked). The more appropriate readings are:

(14a) *We* $\overset{1}{\textit{tried}}$ *to cath them.*

(15a) *I know you didn't dcito.*

In the above examples, as in (12b) and (13b) there is a low-pitch tail. It covers, however, not anaphoric NP's but those portions of the sentences, which are repetitions of the elements that occurred in the preceding sentences. This parenthetical use is not confined to exact repetitions (as in (15a)), but to versions modified according to the requirements of grammatical structure (14a) and even to paraphrases, e.g. "... (They've been cleaning them up the whole morning). *I've never seen such energy*". (The notion *such energy* is implied in the preceding utterance)" (Daneš 1967 : 227).

It appears that nuclear stress placement depends on the context and/or consituation, so the basic NSR applies, without reservation, only to statements that require no context. "The most 'uncontextual' sentences", says Daneš (1967 : 221), "seem to be the generalized statements, such as '*Lions are* $\overset{1}{\textit{beasts}}$', '*Man is* $\overset{1}{\textit{mortal}}$', '*Dogs hate* $\overset{1}{\textit{cats}}$', etc.". The same is true of Polish: *Lwy to* $\overset{1}{\textit{zwierzęta}}$, *Człowiek jest* $\overset{1}{\textit{śmiertelny}}$, *Psy nie znoszą* $\overset{1}{\textit{kotów}}$. The neutrality of a given contour must be judged against the context (cf. Halliday (1970) on "information structure"), so the non-final nucleus of (15a) is no less neutral than that of (15) would be in the context like: *The only thing I can say about the whole business is*: ... The reason for different accentuation in (15) and (15a), has, according to Bierwisch (1968 : 340), its source "in rather deep syntactic (or even semantic) conditions", so "... the direction in which a solution of the indicated difficulties may be found, suggests itself: each constituent which must finally receive primary stress for syntactic (i.e. mostly for contextual) reasons must be specially marked for that property in a very early stage in the syntactic derivation". He concludes by saying "It may well be that the strict separation of syntactic and phonological rules, which has thus far been held to be necessary, is in fact impossible" (341). The dependence of stress pattern has also been studied by other authors (cf. the review in Stockwell 1972). It seems, however, that the final solution will have to take into consideration such concepts as presupposition, focus, topic and comment. Insights into these aspects of language have already been provided, in connection with prosodic features especially, by the linguists of the Prague School, who developed the theory of Functional Sentence Perspective (FSP). The FSP studies "the level of thematic and contextual organization of utterance"

(Daneš 1967:217) to find out "how meanings and their communicative weight or importance are distributed along the length of the sentence" (Bolinger 1972 : 157). The approach differs from the formal grammar of the 1960s which "concentrated on the sentence as a self-contained structure" (Bolinger 1972 : 156). From the point of view of the FSP, an utterance consists of a *topic* (also called *theme*), which covers the part which presents "something" that one is talking about" (Daneš 1967 : 222) and a *comment* (or *rheme*), i.e. the part containing what is said about the topic. Another dychotomy, which can, for practical purposes, be collapsed with topic: comment is *datum : novum* (*given : new*), but cf. Halliday (1970) on possible divergences.

A problem that is central to the studies of the FSP is the relationship between the grammatical (semantic) contextual ordering of sentence constituents. These may be all in agreement, e.g. in English *Columbus discovered America*. The grammatical order SVO is here in agreement with the Topic-Comment (T - C) bipartition, since the comment in English is placed towards the end of the sentence. The above sentence states something about Columbus. The question may now arise: How can the T - C arrangement be maintained if the same sentence is a statement about America? In English, where the surface grammatical order SVO is fixed (no case endings), it is necessary to use the passive:

America was discovered by Columbus

In Polish, where the grammatical order is "free" (and there are disambiguating case endings), it is not necessary to resort to the passive:

Amerykę odkrył Kolumb

the translation of which can only be the passive in English, and not the frequent OVS that Polish learners use (even at quite advanced level). English allows "marked" word order in such cases as e.g. *Here comes the bride*, *Said Dr. Mason*, *And through the window shines the sun* and in those sentences with the direct object where there is no ambiguity: *Cats I detest* (cf. the example about Columbus). But apart from such sentences, which are mainly used in literary style ("Really, that was very handsomely spoken, very handsomely spoken indeed it was"; Heyer 1969 : 81), the grammatical rules of English word order dominate the T - C arrangement and the placing of the comment in the prominent final position is not always possible. The T - C marking may, however, be signalled by the use of intonation and especially by the possibility of marking the comment of a sentence by the nuclear stress, regardless of the order imposed upon it by the grammar. Thus FSP, as Firbas (1972 . 94) says, "plays a decisive role in controlling the intensity of the prosodic features, and above all in determining the location of the nuclei".

The above principle is exemplified in (16), the proper reading of which should be:

1
(16a) *There are some pictures on the walls of my room.*
as *pictures* is the comment (NEW element), while *on the walls of may room* is the topic (the datum, the contextually dependent — or presupposed, element).

In Polish, it is possible to maintain the T - C arrangement, thanks to the flexibility of word order, though it is not "free", it is ruled precisely by the FSP, as stress is in English; that is why Dłuska (1957) says that stress is subordinated to word order in Polish, and it is the latter that is "phonological", while the former is just a concomittant feature ("wtórnie sfonologizowany") The Polish equivalent of (15a) is then:

1
(16b) *Na ścianach mojego pokoju znajduje się kilka obrazów.*

with the T - C preserved (for more examples see Wierzbicka (1970) and Jodłowski (1957)).

It would, in fact, be possible to put the comment in (16a) in the final position, if the marked word order were used:

1
(16c) *On the walls of my room there are some pictures.*

This structure is preferred by the Polish learners (through analogy with the native pattern), but the analogy often leads too far; and *there*-less sentences abound, e.g.

**Plosive consonants are produced when in oral cavity is a closure.*
**In the mouth is a narrowing.*

(these are actual sentences used by the first year students of English philology).

The reason why Polish learners use the adverbials in the initial position is that the use is *neutral* in Polish (final position being reserved for more important, rhematic elements). It is, however, *marked* in this position in English (Crystal 1969 : 182), and that is why sentences like *So almost all the time I spent at home* seem emphatic (this sentence is, moreover, awkward because of the length of the adverbial — final position + extra stress would be preferable). Compare also:

1
W ogrodzie spotkaliśmy jakiegoś staruszka
1
We met an old man in the garden
1
In the garden we met an old man

The last sentence sounds emphatic because of the fronting of the adverbial. The emphatic fronting occurs also in the cleft sentences and the reading of (17) with the stress on the final element is in the circumstances inadmissible, the correct version being:

1
(17a) *It's John I came to see*

The emphasis can be expressed by the stress pattern only, without the special construction:

(17b) *I* $\overset{3}{\textit{came}}$ *to see* $\overset{1}{\textit{John}}$

The Polish learners do not realize fully the role of contour centre in signalling the thematic (contextual) structure of English utterances. That is why, through analogy with the native tendencies, they notoriously assign sentence stress to the last (stressable or non-stressable) item in the sentence. In this they follow the T-C pattern in Polish which, due to variability in word order, can be preserved. The use of the stress pattern with the nucleus in the final position coincides with the NSR of English in its simplest form, but leads to mistakes in a number of cases. Invariable use of the pattern strikes the English ear as monotonous; besides the speaker may appear to have in impolite or argumentative attitude: *I know you didn't* $\overset{1}{\textit{do}}$ *it* used in an unsuitable context (as in (15)) may appear to imply ... *but I know you* $\overset{1}{\textit{wanted}}$ *to.* It is possible to obtain opposite effects from those intended (e.g. *Thank* $\overset{1}{\textit{you}}$ for $\overset{1}{\textit{Thank}}$ *you*), so it may be said that mistakes in nuclear stress placement influence communication in an undesirable way and are a source of misunderstandings. On the other hand, the lack of skill in exploiting the sources of English stress in signalling contextual meanings and emphasis leads either to the usage of forms preferred in the written language (*as far as, as regards, the one who,* etc.) or to the transfer of the Polish word order patterns (**very important is also the* $\overset{1}{\textit{fluency}}$, **America discovered* $\overset{2}{\textit{Columbus}}$, etc.). Sentence structure should not be taught without reference to such problems, if mistakes which are encountered even in advanced learners are to be effectively eliminated.

APPENDIX

Below an illustration is given of the necessity to teach Polish students how the principles of Functional Sentence Perspective operate in English and how the T-C structure is rendered by co-operation of stress patterning and word order.

The following sections present the results of a *written* exercise given to first year students (55 subjects) and fifth year students (10 subjects) of English philology. The subjects were asked to translate the following sentences into English:[1]

---

[1] Taken from Wierzbicka, A. 1970: *President Ford* replaced *Gerard Philippe.*

(1) Wczoraj przybył do Warszawy prezydent Ford.
(2) Do Warszawy przybył wczoraj prezydent Ford.
(3) Prezydent Ford przybył do Warszawy wczoraj.
(4) Do Warszawy prezydent Ford przybył wczoraj.
(5) Wczoraj prezydent Ford przybył do Warszawy.
(6) Wczoraj prezydent Ford przybył do Warszawy.

Since the exercise was concerned with written English and thus did not require immediate "spontaneous" response ("a vista" translation), its value for the study of the problems of stress may appear doubtful. It is hoped, however, that the role of stress in T-C marking can at least be signalled by the necessity to use its written-medium equivalents: 1) word order (to a lesser extent than in Polish), 2) special constructions. The exercise the students' skill in handling these devices.

Sentences (1) - (6) demonstrate the powerful role of word order in T-C marking in Polish. If we assume that none of the constituents is given special ("unpredictable") emphasis in speech, it is possible to predict the stress contour with which the sentences would be uttered. Moreover, although alternative readings are allowed (as no context is provided), certain interpretations will be excluded on the strength of word order clues as to the thematic structure of the sentences. The answer to the question of whether learners are aware of these constraints and able to find adequate means of expressing the thematic structure in English may be important for the teaching of both written and spoken English.

Let us consider (1) - (6) in turn and discuss the translations given by the students. (1) and (2) may be examined together as they differ only in the placement of the adverb *wczoraj*. It was said above that the "neutral" adverbial position is the beginning of a sentence in Polish and the end in English. However, in (2) the position of the adverb is even less prominent than in (1), so that most adequate English equivalents of (1) and (2) seem to be the following:

(1a) *Yesterday President Ford arrived in Warsaw.*
(2a) *President Ford arrived in Warsaw yesterday.*

The sentences tha would really render the thematic structure of the Polish sentences in (1) and (2) might perhaps be the following:

(1b) *Yesterday Warsaw was visited by President Ford.*
(2b) *Warsaw was visited by President Ford yesterday.*

The versions given by first year students (S-I) for (1) were the following:

23 — with initial *yesterday*
11 — with final *yesterday* (in 2 *President Ford*, in 1 *yesterday* were underlined for emphasis)
14 — *Yesterday arrived in/came to Warsaw President Ford*
1 — *Just yesterday...*

2 — *Yesterday to Warsaw President Ford arrived*
1 — *Yesterday to Warsaw arrived President Ford*
1 — *President Ford visited Warsaw yesterday*

The fifth year students (S-V) answered (1) in 8 cases with initial *yesterday*, in 2 cases with the version: *Yesterday, there came to Warsaw President Ford.*

In (2) S-I answers were the following:

14 — with final *yesterday*
12 — with initial *yesterday*
6 — *President Ford arrived yesterday in Warsaw*
8 — *To Warsaw arrived yesterday President Ford*
2 — *To Warsaw President Ford arrived yesterday*
3 — *To Warsaw yesterday President Ford arrived*
3 — *Yesterday came to Warsaw President Ford*
1 — *To Warsaw, President Ford yesterday arrived*
1 — *Warsaw was the town where President Ford arrived yesterday*

Only one answer was identical with the perfect (1b) version.

In the answers of S-V there was also variety:

3 — with final *yesterday*
2 — *It was to Warsaw that...*
2 — *President Ford came yesterday to Warsaw*
1 — *To Warsaw President Ford came yesterday*
1 — *To Warsaw there came yesterday President Ford*
1 — *It was to Warsaw that there came President Ford yesterday*

It appears that, apart from the versions which were grammatically incorrect, a number of students in both groups intepreted (2) as a sentence with emphasis on *Warsaw* or contrast *to Warsaw — yesterday*. It is, however, a highly unlikely (or unnatural) reading of (2) — cf. (5), where emphasis on *Warsaw* is legitimate, or (6), where it is possible and (4) where contrast *to Warsaw — yesterday* is indeed indicated.

Sentence (3) is superficially congruent with (2a). The Polish structure, with the final *wczoraj*, suggests, however, tha the adverb is the comment of the sentence and should be stressed. In English, (2a) can be the equivalent of (3), provided *yesterday* receives extra-stress (emphatic high fall). In writing, the emphasis is rendered by means of cleft constructions. Thus, the forms suggested as equivalent to (3) are:

(3a) *President Ford arrived in Warsaw YESTERDAY*
(Cb) *It was yesterday that President Ford arrived in Warsaw.*

The superficial agreement of the Polish word order in (3) and the typical English SVO order is undoubtedly the reason for the students' rather uniform response. S-V answered with (2a) in all cases, the same pattern was chosen by S-I in 37 cases. Other S-I versions:

1 — *Yesterday there was in Warsaw president Ford*
2 — *YESTERDAY arrived to Warsaw President Ford*
1 — *President Ford came yesterday to Warsaw*
2 — with initial *yesterday* as in (1a)

Only 4 S-I subjects used the (3a) version; none of the subjects selected (3b)

Sentence (4) involves contrast *to Warsaw — yesterday*, although emphatic readings with extra-stress on either *Warsaw* or *yesterday* are admissible. Thus the closest equivalent to (4) in English seems to be:

(4a) *To Warsaw President Ford came yesterday*

which in the spoken form will have the contrastive stress on the first and last constituent.

(4a) was selected by 2 S-V subjects. Other versions were:

1 — *To Warsaw came President Ford yesterday*
1 — *President Ford came yesterday to Warsaw*
1 — *It was Warsaw President Ford came to yesterday*

Two subjects chose clefting with *yesterday*/*It was yesterday*. and two with *Warsaw* (*It was to Warsaw...*). One subject selected the (2a) reading.

Among S-I (2a) reading was selected by 12 subjects, (3a) reading by 2. Other versions (*none* of the form (4a)) are:

1 — *President Ford arrived in WARSAW yesterday*
1 — *PRESIDENT FORD came just to Warsaw yesterday*
1 — *Yesterday to Warsaw came President Ford*
1 — *President Ford came yesterday to Warsaw*
1 — *Yesterday President Ford came to Warsaw*
1 — *It was yesterday when President Ford came to Warsaw*

One interesting, context-providing intepretation was: *President Ford visited Cracow and the second town he visited was Warsaw where he arrived yesterday.*

The variety displayed in the intepretation of (4) is even more striking in the case of (5). Two readings are equally appropriate (as no context is provided). One of them is:

(5a) *President Ford came to Warsaw yesterday*

i.e. the most "neutral" reading (cf. (3) and (2) which required different readings (3a) and (2b) respectively, although (2a) was also possible).

Five S-V subjects chose (5a) and the other five translated (5) word for word: *President Ford came yesterday to Warsaw*, whose word order is not acceptable in English.

(5) can, however, have another reading: the final position of *do Warszawy* may indicate that an emphatic stress is placed on the phrase (should the context so require). Thus (5) can also be read:

(5b) *President Ford came to WARSAW yesterday*
or (5c) *It was to Warsaw that President Ford came yesterday*

Many S-I subjects tried to capture the meaning in their interpretation but the attempts were hardly ever successful. Ten subjects selected the neutral (5a) reading, four chose (1a). Other versions abounded: 20 — *President Ford came yesterday to Warsaw* (cf. the 50% occurrence among S-V)

1 — *President Ford came to Warsaw YESTERDAY*
1 — *Just YESTERDAY president Ford came to Warsaw*
1 — *Yesterday there was in Warsaw PRESIDENT FORD*
2 — *Yesterday arrived in Warsaw President Ford*
1 — *PRESIDENT FORD arrived in Warsaw yesterday*
1 — *To Warsaw arrived yesterday President Ford*
1 — *President Ford did come to Warsaw yesterday*
1 — *It was President Ford who came to Warsaw yesterday*
2 — *President Ford came yesterday TO WARSAW*

Two subjects chose (5b), none chose (5c).

Similarly to (5) sentence (6) may have a neutral version, identical with (1a) (but it has to be remembered that for (1) the (1b) version is really better):

(6a) *Yesterday President Ford arrived in Warsaw*

(6) can also have a contrastive reading *yesterday — to Warsaw* (cf. (4)) and an emphatic interpretation with *WARSAW*. However, (5a) word-for-word translation was selected by a majority of subjects both in S-V (6 cases) and S-I (23 cases). (2a) was chosen by 3 S-V subjects and 4 S-I subjects. The contrastive reading, which does not differ — in writting — from (6a), was substituted by (4a) in one S-I case. Several subjects tried to render the contrast by putting a comma after *yesterday* (S-I: 6 cases, S-V: 1 case), or using both the comma and the underlined *Warsaw* (one S-I case), which was certainly the clostest to the Polish meaning:

6b) *Yesterday, President Ford arrived IN WARSAW* (cf. 4a).

S-I subjects gave other, unacceptable versions:

1 — *Yesterday ARRIVED President Ford in Warsaw*
1 — *TO WARSAW yesterday President Ford arrived*

1 — *President Ford arrived in Warsaw YESTERDAY*
2 — *Yesterday to Warsaw President Ford arrived*
1 — *It was yesterday...*

The above review shows that students not only have difficulty with decoding the "contextualizing" clues supplied by word order in Polish and finding acceptable equivalents for them in English, but they also do not observe the rules of grammatical word order in English, thus producing sentences that are not merely unacceptable translations but simply ungrammatical structures. The resources of English in this respect should be made obvious to learners in a far more extensive way than until now.

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CONTRASTIVE COLLOCATIONAL ANALYSIS

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1.0. THE STUDY OF LEXIS

In spite of its unquestionable merits contrastive analysis has been criticised repeatedly for not having achieved one of its main objectives: the complete description of two languages in a contrastive grammar. If such a goal can be reached at all, one of the prerequisites will be the description of all aspects of language. Not all fields in linguistics, however, seem to appeal to linguists in the same way. While numerous contrastive studies have been dedicated to syntax and phonetics, lexis has been neglected (cf. Wilkins 1972:111).

For purposes of second language teaching lexical contrastive studies are not less important than those in syntax and phonology. There are numerous sources of mistakes in vocabulary learning due to interference, mainly because the belief in one-to-one correspondences — favoured by bilingual vocabulary equations — still prevails in schools (cf. Nida 1964:50; Lado 1965:217; Stockwell et al. 1965:271). But even in languages as closely related as English and German such correspondences are extremely rare:

> Almost every single item, every word, differs in some way in its syntactic range, its morphological range, its denotative range, or its circumstantial range (Kufner 1962:75).

The various ranges Kufner mentions account for the considerable difficulties learners have especially in cases where a broad similarity induces the assumption of congruence. Particular difficulties arise if the learner is confronted with a choice of "synonymous" lexical items which vary in usage. There are no easy answers available: problems of meaning can be solved by referring to a dictionary, problems of syntax by referring to a grammar. If the problems lie in between, both fail.

This is the case with collocations. Here, in the shady area between grammar and lexis with its enormous difficulties for the foreign language learner detailed information based on contrastive studies is badly needed (cf. Browning 1967:

54; Carstensen 1969: 10 ff.). If there are any hints at collocational usage at all they consist — even in the best dictionaries (COD, ALD) — of only a few examples mainly quotations from literary sources which can hardly be relevant for usage in everyday speech. The dictionaries fail to state explicitly the conditions and restrictions on collocation followed intuitively by the native speaker, nor do they state collocational preferences other than in fixed idioms. The information needed goes far beyond word meaning, touching matters of syntax, semantics and style.

2.0. A THEORETICAL OUTLINE

> For co-occurring in syntax we use the term *collocate*; an item collocates with another in its *environment*, the two together forming a *collocation*. (Strang 1968:224)

The term "collocation", as it is used in this paper, should be understood in its widest sense: It refers not only to the mere co-occurrence of two lexical items but — like Leisi's (1973:184) term "semantic congruence" (semantische Kongruenz) and Bańczerowski's (1974:20) "determination connexity" — also to their capacity or their tendency to collocate. This concept of collocation differs from that in the original collocational theory developed by J. R. Firth and goes beyond the concept of *selection restrictions* developed in transformational grammar. It therefore seems necessary to sketch the outlines of the two theoretical approaches and their combination in Roos (1975:36 - 38) before the practical implications of contrastive collocational analysis are discussed.

2.1. COLLOCATIONS

The term "meaning by collocation" was coined by J. R. Firth in his 1951 paper on "Modes of meaning". It is part of Firth's contextual theory of meaning.

> The following sentences show that part of the meaning of the word *ass* in modern colloquial English can be by collocation
> (i) *An ass like Bagson might easily do that.*
> (ii) *He is an ass.*
> (iii) *You silly ass!*
> (iv) *Don't be an ass!*
> (Firth 1957:194 f.)

Collocation in the original sense is, therefore, rather a kind of distribution relevant for disambiguation or for the description of style, than a syntagmatic connection of lexical items according to specific rules (cf. Firth 1957:195; Ikegami 1967:57; Halliday 1960:19). Halliday, Greenbaum, Sinclair and other

British linguists have contributed considerably to the improvement of Firth's original concept and to the development of modern collocational theory.

This approach, based on statistical analysis of usage, has the advantage of stating the collocational preferences and tendencies dependent on usage and describing the collocational range of lexical items:

> Words have only a certain tolerance of compatibility, only a certain potential of collocability, quite apart from any considerations of pattern in the grammatical sense (Mc Intosh 1961:327 f.).

Firth's collocational theory describes collocations according to their statistical probability of occurrence without considering syntactic conditions. The advantage lies in the possibility of accounting for collocational preferences based on usage, on individual habits — in other words: features of style (cf. Firth 1957:196; Halliday 1966:160) and on language specific "semantic channels" (Bańczerowski 1974). Collocational analysis distinguishes between collocations that occur only occasionally such as *hate* and *pictures* in (1) and those like *take* and *pictures* in (2) which seem to collocate habitually

(1) *The girls hate pictures.*
(2) *The girls take pictures.*

While the former type has no relevance for second language learning, the latter — labelled *habitual* (Firth), *significant* (Sinclair) or *principal* (Greenbaum) *collocations* — definitively have. A German learner of English would be inclined to render

(3) *Die Mädchen machen Bilder*

as

(4) **The girls make pictures,*

instead of (2). This type of lexical choice is unpredictable to the foreign language learner and can only be learned through memorization (cf. Bańczerowski 1974:28). Another problem is touched on in sentence (4): acceptability. The collocation of *make* and *pictures* in (4) is qualified as "non acceptable" on mere statistic grounds. The following sentences quoted from McIntosh (1967: 317) show, however, that such an explanation is not sufficient to account for all kinds of collocational acceptability or deviation:

(5) **The flaming waste-paper basket snored violently.*
(6) **The molten postage feather scored a weather.*

According to Lyons (1966:297):

> there are many different factors which determine the acceptability or unacceptability of particular collocations: logical consistency, material motivation, social convention, and so on... Rather than set up one structural level to handle the co-occurrence of particular lexical items, presumably on a statistical basis, it would seem preferable to distinguish these several factors and these various points of view and to investigate them separately.

Halliday (1966:159) and Greenbaum (1970:11) are aware that this is not possible using Firth's syntax-free "item oriented approach" (Greenbaum) nor — as Halliday (1960:16) and Kempson/Quirk (1971:1) realize — without referring to componential analysis. There is, however, no need for developing such an improved collocational approach: it exists already in the concept of selection restrictions in transformational grammar.

2.2. SELECTION RESTRICTIONS

Selection restrictions and their function within the framework of the semantic component of transformational generative grammar were first described in Katz/Fodor (1963). This paper, designed as a linguistic metatheory applies the principles of syntactic analysis developed by Chomsky (1957) to problems of semantics (cf. Bolinger 1968:555). Whether the semantic component has an interpretative status as in Katz/Fodor (1963), Katz/Postal (1964) and the different stages of Chomsky's theory, or it assumes the function of semantic rules preceding those of syntax, — the function of selection restrictions remains basically the same. They state the collocational conditions on the use of the lexical items listed in the lexical component (the "dictionary" in Katz/Fodor (1963), the "lexicon" of most other recent publications). The function of selection restrictions consists in "the selection of some senses and the exclusion of others" (Katz 1966:205) and giving detailed "information about the relation between features of certain combinations into which a lexical item may enter" (Katz/Fodor 1964:497). The first definition reminds us of Firth's concept of "meaning by collocation". It has to do only with decoding but not with encoding and therefore has no relevance for a generative theory. The latter, however, touches upon the crucial point of permissible combinations.

These conditions for selection are represented in terms of semantic markers or — to use M. Bierwisch's (1970) terminology — semantic features (cf. Katz/Fodor 1964:496; McCawley 1968:134). Chomsky (1967:237) stresses the need for a specific characterization of these features:

> ... the more detailed the specification of selection restrictions the more elaborate will be the stratification of utterances into degrees of grammaticalness.

Ungrammatical combinations of lexical items are either marked as such or prevented from being generated by means of selection restrictions (cf. Bierwisch 1966: 117; Hundsnurscher 1971: 22). Bendix (1966: 9) suggests treating borderline cases not within the theory but leaving them to the intuition of the native speaker.

The fact that the syntactic framework in which a lexical item tends to occur is relevant for its meaning (cf. Chomsky 1957:104) is also relevant for the description of selection restrictions: they cannot be stated without referring to the syntactic conditions (cf. Berndt 1974:45f.). Various theories go beyond Katz/Fodor's and Chomsky's 'standard theory' in their attempts to describe the interrelationships between syntax and semantics. One of them is Helbig's *Valenztheorie* (1971) which can — as Irtenjewa (1971) shows — easily be combined with transformational-generative grammar. A similar approach based on modern logic interprets the relationship called *Valenz* by Helbig as arguments of a predicate calculus. Logical relations of this nature underly the deep structure of generative semantics as developed by Lakoff, McCawley and others. The same relationships are expressed by cases in Fillmore's case grammar.

These recent developments do not contradict the concept of selection restrictions but cast new light on some conditions on collocation. By reference to these modern semantic concepts it is possible to cast new light on collocational problems difficult to solve by other approaches. In the light of an overall grammatical theory problems of acceptability are reduced to problems of grammaticalness. Within the framework of such a theory it becomes possible to explain why collocations refused by a native speaker are ungrammatical by stating the rules violated.

Whatever such a grammatical theory may look like — it has to be based on the assumption of — possibly universal — semantic features. Componential analysis, therefore, is one of the prerequisites for any theory of collocation in terms of selection restrictions. The dependence on the syntactic framework which again is determined by the inherent semantic structure of the lexical item concerned accounts for the necessity of a semantic description which must precede the description of the selection restrictions.

The advantage of selection restrictions lies in their formal properties which make it possible to state explicitly the conditions any lexical item collocating with a given lexical item — its 'collocates' in the terminology of the collocational theory — must fulfill. This implies a statement of the positions in the environment of the lexical item concerned which can or must be filled in syntactic constructions Helbig's *Valenzen*. Adjectives, for example, need selection restrictions for nouns, pronouns and adverbs. What kind of noun an attributively used adjective can specify depends on semantic conditions (cf. Leisi 1973: 184). While *man*, *house* and *income* are possible collocates of *big*, collocations with *interest*, *fear* and *pain* are not possible (cf. Carstensen 1969:12f., quoted in Leisi 1973:785). The selection restrictions and collocational component of the lexical entry must state the conditions and rules underlying the selection of the collocate.

In verbs, the number of compulsory and facultative collocates varies according to the semantic structure of the lexicon entry. Verbs which can be used only intransitively need less selection restrictions than transitively used verbs.

As (7) and (8) show, *sell* differs from *snore* in the number of syntactic positions which can be realized in its environment and therefore in the number of selection restrictions needed.

(7) *John snores.*

(8) *Bill sold his old car to one of his friends for 10 Dollars only.*

The semantic structure of *snore* can be represented as "A snores", that of *sell* as "A sells B to C for D" with A and B as compulsory, C and D as facultative positions to be filled (*Valenzen*, arguments, or cases). The lexicon entry of *sell*, therefore, must contain selection restrictions for the nouns and/or pronouns in D, while that of *snore* only needs them for A. Both verbs in addition must be specified according to the various adverbs and adverbial constructions they can take. The selection restrictions demand for *snore* in A nouns or pronouns with the semantic marker [+anim] and so prevent sentences like

(9) **The symphony snores.*

2.3. A COMBINED APPROACH

While such an approach accounts for all grammatical sentences, it cannot explain why (10) is preferred to (11).

(10) *My little sister brushed her teeth.*

(11) *My little sister cleansed her teeth.*

The collocation of *brush* and *teeth* is sanctioned by usage and is preferred, therefore, rather on stylistic than grammatical grounds. This type of collocational preference cannot be accounted for by means of selection restrictions but only by Firthian collocational analysis. A possible solution could consist in a combination of both approaches (cf. Roos 1975: 38f.). By introducing a stylistically oriented collocational component in addition to the selection restrictions in the framework of a generative semantic theory and by projection rules sensitive to this type of information one can prevent the generation of sentences like

(12) **The soldier passed away under the tremendous impact of the exploding shell.*

which would be permitted by the selection restrictions of the lexical items involved. Such a combined approach has the advantage of generating both grammatically and stylistically permissible collocations. It states not only that some collocations are possible or not possible, "better" or "not so good" as others but explains why this is so. Furthermore it fulfills the requirements of contrastive analysis.

Collocations in two languages can only be constrasted if the comparability (cf. Halliday et al. 1964: 115, 125, Hamp 1968: 143) of the lexical items involved is established by well-defined criteria such as translation equivalence (cf. Krzeszowski 1967; Marton 1968) and if they are described within the same theoretical framework. Such a theory must necessarily be semantically based, equivalence being stated in terms of a common semantic input (cf. Krzeszowski 1972: 77; 1974:7, Bańczerowski 1974:11). Contrastive collocational analysis therefore demands a generative semantic theory (cf. Berndt 1974:41 f.). This requirement is fulfilled by the theoretical concept outlined above. Approaching lexis not from the phonological but from the semantic side, such a theory does not contrast ambiguous phonological forms but clearly structured clusters of semantic features. If they are not considered universal in any way they are at least expected to be identical in the two languages contrasted. Equivalent lexical items can easily be recognized by their having the same or similar lexicon entries. Lexical items considered as equivalent are compared with regard to their selection restrictions and stylistic "the differences in syllabic exploitation of formally and functionally corresponding items" (Fried 1968:42). The first step in contrastive collocational analysis, therefore consists in contrasting the lexical structures of the two fields. It shows that some levels of abstraction (cf Bańczerowski 1974:19), subfields and subsets have no counterparts in the other language while others do. These vary according to their size.

3.0 THE WORD FIELD AS THE LEVEL OF CONTRASTIVE COLLOCATIONAL ANALYSIS

Lexical items are not listed in the lexicon as entirely isolated units but they are integrated in the network of lexicon structure by various types of relationship such as synonymy, antonymy, hyponymy and others (cf. Apresyan/Mel'čuk/Žolkovsky 1969) which form paradigmatic sets and fields. By redefining the latter in terms of semantic features (cf. Bierwisch 1970:171) one avoids the difficulties of J. Trier's original concept of *Feld* and so makes the word field a practicable semantic unit (cf. Bendix 1966:1; Leech 1969:20, 88).

At the first glance contrastive lexical analyses seem to be possible at various levels. The extremes of contrasting the whole lexicon on the one hand and contrasting individual lexical items on the other turn out to be not practicable, the former because of its size, the latter because of the lack of one-to-one correspondences in lexis. The word field lies in between avoiding the disadvantages of the two extremes.

3.1 THE LEXICAL STRUCTURE

Comparable word fields are easy to find. If they are too large for contrastive analysis they can be broken down in smaller subfields (e.g. the verbs of vision as a subclass of the verbs of perception). By further subcategorization into smaller subsets and finally individual lexical items the structure of the word-field is worked out. The criteria for subcategorization being the same in both languages the lexical structures gained in this way can be contrasted. The similarities and differences in structure account for the idiosyncrasies and the "language-specificness" (cf. Berndt 1974:62) of the individual lexical items which cannot be fully understood without considering their position within the overall network of the lexical structure.

3.2 THE ANALYSIS OF INDIVIDUAL LEXICAL ITEMS

The next step leads to the individual lexical items. Congruence in lexis being extremely rare each lexical item of the source language is confronted — as in bilingual dictionaries — with all its possible counterparts in the target language. When lexical items of the source language and the target language overlap...

> one or the other of these items extends its range to that of another or other items in the other language... Such incomplete overlapping results in a maze of difficulties for the student and a dictionary is frequently of no help to him (Stockwell et al 1965: 274ff.)

Where most dictionaries end, contrastive collocational analysis starts: on the basis of the equivalent subsets gained by contrasting structured fields it not only states on formal grounds which lexical items in the target language can function as equivalents of a given item of the source language but also states why they do so and under what conditions.

By contrasting the selection restrictions and collocational preferences of lexical items which would be considered equivalent or even congruent on the basis of their semantic features one can account for the differences in usage not as most dictionaries do by means of unsystematically and inconsistently listed examples but within the framework of a linguistic theory and in terms of formal categories. Such a description can state explicitly the similarities and differences of equivalent lexical items. Where dictionaries leave their user with the difficulty of choice, a contrastive collocational analysis states explicitly which lexical item fulfills best the collocational requirements.

4.0 CONCLUSION

Carstensen (1969:17), Bańczerowski (1974:22) and others stress the need for a new type of dictionary which could help the foreign language student to construct acceptable utterances. The advantage of dictionaries based on contrastive collocational analyses are obvious. Vocabulary learning could be considerably improved. But contrastive collocational analysis is still far from furnishing the descriptions needed in these fields of applied linguistics. What is to be done? A theoretical basis and a practical procedure like those tentatively sketched in this paper should be developed, applied and improved. What Bierwisch (1970:184) suggests for semantic analysis applies to contrastive collocational analysis, too: it must

> ...start with small, clear subsystems, developing therby the necessary basic concepts. Such islands might then the extended to larger complexes...

Starting with the description of clearly defined semantic word fields the goal of the complete description of the lexicon of two languages can be approached. The description of the collocational properties of lexical items which presupposes their semantic description and contrastive analyses based on such descriptions are important steps in this direction.

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ON ESTABLISHING EQUIVALENCE BETWEEN LEXICAL ITEMS OF TWO LANGUAGES

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This paper deals with equivalence of lexical items of two languages from the practical rather than theoretical point of view. Before an attempt at establishing such equivalence, or the degree of it, can be made, the items in question must first be defined in a way that will make comparison at all possible. It has long been recognized that standard monolingual dictionary definitions are inadequate for any kind of semantic analysis (Apresjan 1972) and attempts have been made at laying down the principles for explicit definitions (Apresjan 1972). Provisionally it might be said that any attempt at establishing the "meaning" of a lexical item must be based on an analysis of usage: the assumption is that a study of the way an item has been used by native speakers of the language will give an indication as to its potential value, the way it will be used, at least in the nearest future, and will provide a basis for translating it into another language (Strang 1972:215 - 218). The question is what kind of information is relevant to the study of a particular category of lexical items. It seems quite convenient to start a study of a verb by considering the various combinations it enters, e.g. *time goes, the story goes, go hungry, things go well, it all goes to show, the election goes against him*, etc., and then contrasting it with other verbs with which it shares some semantic feature(s), e.g. *to go* vs. *to proceed, to walk, to stroll*, etc., while sentences like *John has written a book, I've got a book, There is a book on the table, The book is green*, etc. will not tell us very much about the word *book*, at least not enough for us to be able to tell the difference between *a book* and *a letter*[1]. Verbs in particular appear to be a very convenient category to analyze and, indeed, most of the papers devoted to semantic analysis have concerned verbs.[2] The aim of this study was to find out whether, or to what extent, the typical linguistic material is adequate for the purpose of obtaining the "meaning" discriminations necessary for establishing equivalence of a set of English and Polish common nouns denoting "a group of persons organized for some purpose". The choice of items was quite conscious — it was realized that they were not particularly convenient to analyze since, for one thing, they most usually appear in names of quite formal organizations where the choice of words may be affected by personal preference, names being usually made up consciously. However, even if this is a consideration to be reckoned with it applies in equal measure to both languages under consideration, and besides, the effect of any possible idiosyncrasies of usage should be eliminated if the amount of data collected were sufficiently large. The items chosen were: *towarzystwo*, *stowarzyszenie*, *zrzeszenie*, *związek* on the one hand, and *society*, *association* and *union* on the other, viewed as semantic simplexes (elementary units of meaning). Both lists could, of course be extended and the original intention was to consider complete sets, but it soon turned out that if there was any to be made these incomplete sets would do. As a preliminary step let us make a list of features which are relevant to particular members of the "group of human beings" set, but are not relevant to the items in question, thus distinguishing them from all the words expressing the above notion, though in somewhat negative terms. Thus, apart from two positive features that these items share, i.e. they all stand for a group of persons who are organized, as opposed to *crowd*, and contemporary, as opposed to *dynasty* there are a number of features that they do not possess, such as:

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[1] The example is quoted after Akhmanova. O. and Marčenko, A. N. (1972:22 - 23).

[2] See, for example, the papers in Wierzbicka, A. 1972.

number (definite)	as opposed to *electorate*, *clergy*
number (specified)	*an eleven*, *a trio*
physical presence	*crowd*, *swarm*
common origin, language, tradition	*tribe*, *nation*, *dynasty*
membership by election or appointment	*committee*, *council*
emotional markedness	*clique*
age (Polish items only?)	*dzieciarnia*, *starszyzna*
sex	*demi-monde*, *harem*
relative permanence of organization	*committee*

Other features that distinguish the *association* words from all other "group of persons" words include a measure of independence of organization, as opposed to *a section* which is a constituent part of *a platoon*, freedom of the members to join or opt out, as opposed to *family*, *offspring*, *race*, and basically non-political and non-military character of organization, as opposed to *a (political) party*, *army*, etc., although this is connected with a feature that by itself, or in combination with some other features will serve as the basis for differentiation between the words for "associations" themselves, namely, the purpose or aim.

Before we go any further let us consider the following:
Związek Harcerstwa Polskiego has been translated as:

"The League of Polish Scouts" (Grant 1968 : 179)
"The Polish Pathfinders' Union" (*Polish Weekly* 1973 : 1)
"The Polish Scouts' Association" (Stanisławski 1969 : 1531), while the typical renderings of *Akademicki Związek Sportowy* are:
"Students' Sports and Athletics Club" (Stanisławski 1969 : 1513)
"Student Sports Federation" (Sobczyk 1962 : 131)
"The Academic Sports Association" (Kubera 1962 : 87)
"The Academic Sports Union" (Sobczyk 1962 : 142).

The above renderings beg the following questions: are "league", "union" *association* on the one hand, and *club*, *federation*, *association* on the other the "same" or not? and since the key word in the names of Polish organizations is *związek*, are they all equivalents to it? A look at the typical dictionary definitions of these items would give a positive answer and it would be further confirmed, at least to some extent, by the typical equivalents to be found in any Polish-English dictionary. But is it not a cliché that the notion of "true" synonymy within any language and the notion of one-to-one correspondence between lexical items of any two languages are both equally fallacious? Every native speaker feels intuitively that there are differences between similar words although he may not always be able to articulate them. So, if there are differences between the English items, how can they be established? What sort of information do we need to define them so as to be able to compare them with their alleged Polish counterparts? Let us first have a look at actual usage and see how far this will get us. It must be pointed out that although after a certain amount of dictionary browsing and a long look at a list of American associations and societies the set of words expressing the notion specified earlier grew considerably longer and included words like *institute*, *institution*, *council*, *federation*, *guild*, *club*, *league*, *academy*, *foundation*, *corps*, *conference*, *order*, *committee* and a few others, some remarks can be made that may be of interest, if not of significance:

1. in a sample of about 70 thousand citations excerpted from material published in the '70ties and relating to the organization and functioning of government, local government, science, education, health service, the national economy, culture and recreation in Poland, Britain and the U.S.A. the majority of the citations relating to "associations" were actually based on the words *związek*, *towarzystwo*, *stowarzyszenie* and *zrzeszenie* in the case of Polish, and *union*, *association* and *society* in English. A number of factors may be responsible for this, but it seems that even if a number of potential alternatives exist, especially in the case of English, the ones most commonly employed are those named above;

2. In the complete inventory of American associations and societies, where names can be found employing such items as *institute, council, club, order, league*, etc., the majority of them are nevertheless based on the words *association* and *society*. Labor unions are listed separately and, predictably, most of the names use the word *union*, though a number of *associations, federations societies, brotherhoods*, etc., can also be found. Comparable lists of British "associations" were not available, but the data collected seem to suggest that the situation in Britain (or British English) is similar.

3. All these items are employed in the names of local, national and international organizations.

These are, undoubtedly, very superficial observations. To get any further, but still on the basis of available linguistic data we might consider the people who make up these organizations, surmise about the possible reasons they might have had for banding together and chosing a particular name, etc. Thus one might say that in English, both British and American, the word *union* is used basically to denote a fairly homogeneous trade (labor) organization, whose members are the actual workers on production line, with all the implications of labor disputes, industrial actions etc., though this in reality is information of an encyclopedic type we get mainly from mass media. To these have to be added students and non-graduate teachers and so a description including them all would be that "union" is an occupational organization of non-degree holders whose aim it is to defend or fight for their rights. This is about the only valid generalization that can be made about the words for associations. One might, of course, say that "clubs" are mainly recreational, or sporting organizations, that "institutes", "institutions", "associations", etc., are usually quite or even very professional or academic, but so, apparently are "societies", at least some of them, e.g. *American Chemical Society, The Linguistic Society of America*, etc., and anyway, any such generalizations can be modified or made invalid by counter examples, e.g. *The Stewards and Stewardesses Association Branch of the Transport Union* (in Great Britain). Also, there seems to be a degree of overlapping in the use of these words:

The American Organization of Historians
The Society of American Historians
The American Historical Association

It appears that unless one examines the actual constitutions of these organizations, analyses their stated and actual aims and activities etc., one cannot possibly say whether they are different labels for what is basically the same, or whether there are important differences, which is probably the case, at least to some extent and significant enough for the particular purpose we have in mind.

The situation with regard to Polish items is slightly less confused, which may be due to the fact that the number of organizations in this country is considerably smaller, at least in comparison with the U.S.A. Most organizations for people pursuing a given occupation or profession use the word *związek*, although the professionals sometimes use *stowarzyszenie*, e.g. *Stowarzyszenie Dziennikarzy Polskich*, *Stowarzyszenie Architektów Polskich*. *Towarzystwo* is the word we tend to use in connection with organizations of academic, artistic, social, welfare, and recreational nature. Here again, however, the exact difference between, for instance, *Socjalistyczny Związek Studentów Polskich* as the student organization is called now, and *Zrzeszenie Studentów Polskich*, as it used to be called until quite recently, can only be established after we have analyzed some extralinguistic data. It seems, that the only piece of information beyond what we get from purely linguistic contexts, the only piece that would be both necessary and sufficient for our purpose is information concerning the aims of the given organization.

The conclusion is that in the case of some words, like those we have been discussing in this paper, the typical linguistic data in themselves are not a sufficient basis for constructing definitions precise enough to permit comparison with the corresponding items in another language. There are probably not many other such sets of words in Polish or in English — one such set one can think of is the group of items for "actors", "operatives", "functionaries", etc. In such cases it is unavoidable to resort to extralinguistic information if meaning discriminations are to be obtained precise enough to enable one to compare them with items of another language. In spite of the fact that an analysis of the actual usage cannot provide all the answers its value is still quite considerable, and apart from the few cases where it must be supplemented in one way or another, it is the only reliable data there is.

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SOME POLISH AGENT SUBSTANTIVES AND THEIR EQUIVALENTS IN ENGLISH[1] – A STUDY IN CONTRASTIVE LEXICOLOGY AND WORD FORMATION

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1. INTRODUCTORY REMARKS

Word-formation has become a matter of increasing interest to linguists in recent years. The existing descriptions of this part of grammar are still far from adequate for the purposes of contemporary linguistic analysis, not only because of their shortcomings, but also because problems of WF have been treated by relatively few writers. For English, the main contributors to the study of WF were H. Koziol (1937), O. Jespersen (1954), and particularly H. Marchand whose 1960 study is the most comprehensive, though not fully satisfactory, description of English WF in structural terms. The latest attempt to show the process of WF within the frame of the transformation-generative grammar made by M. Halle (1973) deserves some attention, as it opens new perspectives for the research in this neglected domain of grammar.

The Polish language has no full structural description of WF. The only major treatment of this section of grammar is the textbook by R. Grzegorczykowa (1974) which gives a solid traditional review of WF in Polish. There are only a few treatments, especially those by R. Laskowski (1973a, b), based on the principles of the TG grammar. The Polish linguist does not follow M. Halle, but makes use of the model elaborated by Fillmore (Laskowski 1973b), and modifies the system worked out by Wurzel (Laskowski 1973a).

In the present paper an effort will be made to present briefly structural differences between Polish agent nouns having some typical agent loan-suffixes and their equivalents in English. The comparison of those agents in both languages will further permit us to form general conclusions concerning the extent of lexico-derivational interference which leads to errors in forming English agent nouns by a Polish learner.

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[1] The term "agent" used here refers to nouns with agent suffixes having the feature [+human].

The suffixes attached to various stems to form agent substantives in Polish have been selected on the grounds of the extent of phono-graphemic similarity to the corresponding agent suffixes in English. Those chosen are as follows: [ista/ysta], [ik/yk], [ant/ent], and [ator]. All of them combine in Polish with stems of foreign origin and also, though less frequently, with native ones.

The selection of the corpus for the present study has been based on the comprehensive dictionary of the Polish language, and particularly on the word-list in the reverse dictionary of Polish, Index a tergo, which arranges the entries of the former in alphabetical order starting with their final letters. Not all noun entries with the above suffixes have been analysed. The following substantives were eliminated:

1) out-of-date nouns marked 'd.' (i.e. old fashioned), 'p.' (i.e. obsolete);

2) those highly specialistic Polish nouns which are not given a corresponding English equivalent in the Great Polish-English Dictionary by J. Stanisławski (1969), for instance, *fowista*, *koncyliarysta*, etc.; in a number of cases, however, some of them were taken into account if they could be found in M. Lehnert's (1971) reverse dictionary of English, e.g. *operacjonista*, not in Stanisławski, but listed in Lehnert as *operationist*;

3) nouns like *teletechnik*, *radiotechnik*, *zootechnik*, because only the main entry, i.e. *technik*, is analysed;

4) all nouns in which the above suffixes do not mark the feature [+human] (mostly names of instruments).

In addition, those agents which possess stems phono-graphemically unrelated to their English equivalents were also disregarded. Thus *gwardzista* is included, because the English equivalent of *gwardia* is a grapho-phonemically related form, cf. *guard* and *guardsman*. On the other hand a class of nouns like *witrażysta* is excepted, since no similar element can be found in the stem of the English equivalent, cf. *glass-painter*.

Such a limitation is made with good reason. The learner of English who tries to find quickly an exact rendering of some Polish agent is easily trapped only when there exists some degree of grapho-phonemic similarity between Polish and English morphemes in the lexicon. Consequently we may expect that even a fairly advanced student of English can make an error rendering Pol. *gwardzista* by a quasi-English formula **guardist* since he is aware of the *gwardia* ~ *guard* correlation. On the other hand such a procedure on his part is very unlikely in the case of, e.g. *witrażysta*, or *kaemista* where the etymological, and at the same time grapho-phonemic, association between Pol. *witraż* and *kaem*, and their English equivalents *stained-glass* (window), *machine-gun* does not exist. We cannot of course rule out the possibility of a completely false association with E. **vitrage* and **kaem*, leading subsequently to nonexistent forms E. *[vitragist] and *[kaemist], but learners with some degree of awareness of the lexical structure of English will certainly avoid such errors.

The other group of substantives worth mentioning is that where the correlation between English and Polish stems exists, though placing them on the same derivational level may also lead to wrong results. A good example is Pol. *instalator* derived from the verb *instalować* which is matched by the etymologically cognate E. *to install*. In English, however, the derivational rule combining [install] and [-ator] does not function, and the required agent noun is formed by means of a lexical procedure[2], not derivational one, through which we arrive at the correct noun, that is, *fitter*. Nouns following this pattern are included into our analysis.

Thus, agent substantives dealt with in this treatment can be conveniently shown in the form of a contrastive pattern (partly based on M. Halle (1973 : 10)):

$$\frac{P\,[STEM+Suf_{NAg}]_{NAg}}{E\,[STEM+(Suf_{NAg})]_{NAg}} \tag{1}$$

where P stands for 'Polish', E stands for 'English', Suf, for 'suffix', NAg, for 'agent noun', and STEM for that part of the word to which a given suffix is attached.

As our description has Polish as the point of issue, the P [NAg] pattern remains stable. The principal aim of the study is the examination of the changes in the E [NAg] pattern, and especially in the parenthetic formula E [Suf_{NAg}], which, as we shall see, may be replaced or be absent.

2. POLISH AGENT-SUFFIXES AND THEIR DIRECT EQUIVALENTS IN ENGLISH

The suffixes marking agent nouns mentioned at the outset of our paper constitute only a small part of the rich inventory of agent substantive forming elements which function in Polish. Those four have been selected because: 1) all have etymological counterparts in the English system of affixation, and are also related semantically; 2) nouns to which they are attached are very numerous in the lexicon and increase in number all the time; 3) they have an almost identical grapho-phonemic structure.

Polish agent suffixes in our analysis are as follows: [-ista/-ysta]; substantival, appears in Polish agents related to nouns in [-izm], e.g. *materialista* (<materializm), or derived from nouns which may be labelled semantically as 'product of human activity', e.g. *felietonista*, *eseista*, *karykaturzysta* (<felie-

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[2] Lexical procedure — the replacement of a foreign lexical element by an etymologically unrelated native one when translating a foreign word from one language into another.

ton, esej, karykatura), 'specialization', e.g. *japonista, folklorysta*; 'instruments', e.g. *basista, klarnecista, pianista*; 'means of transport', e.g. *motocyklista, automobilista*; 'operated mechanism', e.g. *telefonista, telegrafista*, etc. (Grzegorczykowa 1974 : 82 - 83; Doroszewski and Wieczorkiewicz 1964 : 195; Pomianowska 1963 : 50 - 51). [-ik/-yk]: substantival; appears in Polish agents derived from nouns referring to various domains of human activity, e.g. *fizyk, logik, matematyk* (<fizyka, logika, matematyka; Grzegorczykowa 1974 : 83). [-ant/-ent]: verbal, forming agents from borrowed words; there is no fast rule for the use of both variants, eg. *konsument*, but *protokolant* (<konsumować, protokołować), so they are treated together (Grzegorczykowa 1974:80). [-ator]: verbal, with the semantic function like the preceding; it can form potentially innumerable agents from verbs in [-izować], [-fikować]: *neutralizator* (<neutralizować), *kodyfikator* (<kodyfikować).

English suffixes corresponding to the above are:

[-ist]: forms denominal personal stems with the basic meaning 'one connected with'; appears in loanwords from Latin, French, Greek, and in new formations; the basic meanings of the noun are: a) the adherent of a theory, e.g. *Marxist*; b) a person exercising a scientific profession, e.g. *atomist, realist, Anglicist*; c) when nonscientific: addicted to something, a political party, an ideology, e.g. *militarist, monopolist, egoist, falangist*, etc.; d) instrumentalists, e.g. *flutist, harpist, violinist*, etc.; e) men dealing with culture, e.g. *annalist, caricaturist*, etc.; also nouns derived from substantives in [-logy, -gamy, -nomy], e.g. *astrologist, bigamist, agronomist* (Marchand 1960 : 246 - 248; Koziol 1937 : 154 - 155; Jespersen 1954 : 333 - 335).

[-ic]: primarily and originally an adjectival suffix usualy corresponding to abstract nouns in [-icism], e.g. *sceptic, romantic*, etc.; it denotes mainly the followers of systems (Marchand 1960 : 233 - 235).

[-ant, -ent]: derived from verbs of Latin or French origin, e.g. *opponent, resident, occupant, tenant* (Jespersen, 1954 : 368 - 369).

[-ator]: may be treated as belonging to the group of [-or] suffixes; formed from verbs in [-ate], or taken directly from Latin (French) together with the whole unit (Marchand 1960 : 215 ff.).

TYPE A

$$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ista/ysta}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}+\mathrm{ist}]_{\mathrm{NAg}}} \qquad (2)$$

[abolicjonista : abolitionist, abstrakcjonista : abstractionist, absolutysta : absolutist, adwentysta : Adventist, aforysta : aphorist, afrykanista :Africanist, etc.] (A full list of nouns entering this pattern is given in the appendix)

TYPE B

a) $$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ista/ysta}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}+\mathrm{er/\ ster/\ cer/\ ier/\ eur}]_{\mathrm{NAg}}} \tag{3}$$

[balsamista : embalmer, futbolista : footballer, harfista : harper, monografista : monographer*, planista : planner, sygnalista : signaller*; chórzysta : : chorister; pamflecista : pamphleteer; finansista : financier, halabardzista : : halberdier; masażysta : masseur, sabotażysta : saboteur]
(Asterisked nouns have synonyms entering other patterns)

b) $$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ista/ysta}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}+\mathrm{(i)an}]_{\mathrm{NAg}}} \tag{4}$$

[cywilista : civilian, humanitarysta : humanitarian, klinicysta : clinician, parlamentarzysta : parliamentarian, parnasista : Parnassian, polemista : polemician, utopista : utopian, utylitarysta : utilitarian; bakonista : Baconian, freudysta : Freudian, heglista : Heglian, saint-simonista : Saint-Simonian]

c) $$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ista}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}+\mathrm{ary}]_{\mathrm{NAg}}} \tag{5}$$

[kontrrewolucjonista : counterrevolutionary*, legionista : legionary, reakcjonista : reactionary*, rewolucjonista : revolutionary*]

d) $$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ysta}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}+\mathrm{ive}]_{\mathrm{NAg}}} \tag{6}$$

[konserwatysta : conservative*]

In a few cases P [-ista] alternates with zero:

e) $$\frac{\mathrm{P}\,[\mathrm{STEM}+\mathrm{ista}]_{\mathrm{NAg}}}{\mathrm{E}\,[\mathrm{STEM}]_{\mathrm{NAg}}} \tag{7}$$

[alcista : alto, barytonista : baritone, basista : bass, homoseksualista : homosexual, intelektualista : intellectual, kryminalista : criminal, nazista : Nazi, profesjonalista : professional, radykalista : radical, sopranista : soprano]

In Types A and B the correspondence between structures of Polish and English agent nouns is seen both in roots and suffixes, though to a limited extent only in the latter. This correspondence, called from now on CORRELATION, may be FULL, as in the case when direct parallelism occurs, e.g. [artysta : artist], or PARTIAL, when a parallel structure is observed only in the stems, while the suffixes differ. This correlation is also partial when the suffix alternates with zero. In our investigation of the [ista/ysta] suffix full correlation was found in 384 instances, (TYPE A), while TYPE B is represented only by 39 indirect pairs.

It is difficult to form general conclusions concerning deviations from the full correlation pattern which occur in a significant number of cases. In the [er] group (3) the alternation seems to be conditioned by the form of the source word. For instance, Polish derives [masażysta] from Fr. *massage* applying the rule forming agent nouns, i.e. [masaż+ysta], while in English such a rule is not used, since [masseur] is taken over as a whole unit. In the case of [planista : planner] the rule operates in both languages after the borrowing when P[ista], E[er] agent formatives are added to the borrowed stem, i.e. P/E [plan]. Nevertheless if we view the problem on a purely synchronic level, the former alternation, P[ysta]~E[eur] can be treated as a parallel one to that of P [ista]~E[er]. The only disagreement between those two pairs consists in different functioning of the stems in English where [plan] is a free form and [mass-] a bound one. Contrariwise, both stems may function as free units in Polish: [plan, masaż].

A diachronic explanation is needed when other kinds of correlation occur, as in the case of English adjectives in the function of agent substantives corresponding to Polish nomina agentis, cf. E. *humanitarian*, *civilian*; *legionary*, *reactionary* (but also *reactionist*), *conservative* 'member of the conservative party', (but *conservatist* 'follower of conservative policy'. Attention should also be called to the agents derived from personal names, where both [ist] and [an] (*Darwinist*, *Taoist*; *Baconian*, *Heghian*, etc.) correlate with P[ista].

A very interesting alternation with zero (7) observed in ten pairs is easy to explain. In this group four nouns follow closely the original Italian pronunciation and spelling: *alto*, *baritone*, (<—*o*), *soprano*, *bass*, and one is from German: *Nazi*. In five other substantives the [al]Adj suffix appears (*radical*, *professional*, etc.), although [ist] is also found in other agent nouns having this structure, e.g. *racialist*, *occidentalist*.

The above types in which agents in English are formed by suffixation and zero derivation can be labelled DERIVATIONAL CORRELATION, since the correspondences between agent substantives in both languages can be analysed on a purely derivational plane. However, going more deeply in to our examination of the correlation between P and E agent nouns, we shall find that the term introduced above is not adequate for the needs of an exhaustive classification because there still remain many nouns which would require other description and terminology, since they do not enter the cumulative pattern of derivational correlation which is:

$$\frac{\text{P [STEM+ista/ysta]}_{\text{NAg}}}{\text{E [STEM+ist/-er/an/ary/ive/}\ominus\text{]}_{\text{NAg}}} \qquad (8)$$

The remaining nouns will be included into three other types.

TYPE C

$$\frac{\text{P}\,[\text{STEM}+\text{ista/ysta}]_{\text{NAg}}}{\text{E}\,[\text{STEM}+\text{STEM}']_{\text{NAg}}} \tag{9}$$

where STEM' is grapho-phonemically (etymologically) unrelated to the other two.

a) [gwardzista : guardsman, kawalerzysta : cavalryman, kranista : crane-man, sygnalista : signal-man*]

b) [bilardzista : billiard player*, brydżysta : bridge player, flecista : flute player*, hokeista : hockey player, kornecista : cornet player*, pingpongista : : ping-pong player, preferansista : preferance player, rugbista : rugby player, szachista : chess player, tenisista : tennis player, waterpolista : waterpolo player, wiolista : viola-player*]

c) [awangardzista : vanguard artist; kokainista : cocaine addict; traktorzysta : tractor driver; perkusista : percussion drummer; rekordzista : record holder; radiotelegrafista : radiotelegraphic operator; marynista : marine painter (writer), plenerzysta : plein-air painter; portrecista : portrait-painter*; lakista : : lake poet; bobsleista : bobsleigh racer; balladzista : ballad singer, kabarecista : cabaret singer, falsecista : falsetto-singer*; teletypista : teletype setter*]

The division of agent nouns into sub-groups proposed here is of course arbitrary and different arrangements are also possible. There are relatively few nouns in [-man], and most agents are compound phrases corresponding to Polish [ista] agents. In the structure of English agent substantives we can distinguish **HEADS** and **MODIFIERS**. The function of the latter is to parallel basic semantic content of Polish stems, while the former serve as suffix-replacives in the Polish : English correlation, i.e. [-man, (—) player, (—) singer, (—) painter], etc.

For this type the most suitable terms seems to be **LEXICO-DERIVATIONAL CORRELATION** because of the correspondence between the lexical element in English and the suffix in a Polish agent.

TYPE D

$$\frac{\text{P}\,[\text{STEM}+\text{ista/ysta}]_{\text{NAg}}}{\text{E}\left[\text{STEM}'+\begin{pmatrix}\text{Suf}\\ \text{STEM}''\end{pmatrix}\right]_{\text{NAg}}} \tag{10}$$

where STEM, STEM', STEM'' are grapho-phonemically (etymologically) unrelated, and parenthetic elements are optional and mutually exclusive.

a) [aferzysta : swindler (affair), automobilista : motorist (automobile) bilansista : accountant (balance), biuralista : clerk (bureau), detalista : retailer (detail), fanfarzysta : bugler (fanfare), hazardzista : gambler (hazard), konkursista : contestant (concourse), kursista : student (course), rencista : pensioner (rent), serwilista : flunkey (servile), brygadzista : foreman (brigade), stażysta : assistant, etc. (stage)]

b) [cymbalista : dulcimer player (cymbal), ekwilibrysta : rope-dancer (equilibrium), grosista : wholesale dealer (gross), gimnazista : grammar-school pupil (gymnasium), kabalista : fortune teller* (cabal), kombajnista : cutter-loader (combine), maszynista : engine driver* (machine), nowelista : short-story writer (novel), prymista : born musician (prime), stypendysta : bursar, etc. (stipend), urbanista : town planner* (urban)]

To this group of equivalents special attention should be paid by learners of English. All Polish nouns contain stems which have grapho-phonemic counterparts in the lexicon of the English language and due to this interference the student will tend to replace Polish stems by their etymological replicas. In some instances the replacement may lead to a potential derivational correlation resulting in a correct form, as it happens when Pol. *urbanista* is rendered by E. *urbanist*, though *town-planner* arrived at through a lexical analysis appears to be a more proper equivalent. Therefore the term LEXICAL CORRELATION is proposed here to denote nouns in type D, because the correspondence is grounded entirely on a lexico-semantic basis.

The last group includes those cases which cannot be considered on a par with the previously discussed Some Polish agents are missing in the corresponding English equivalents, though the lexicon of the latter language possesses of an inventory of etymological correspondences. A descriptive phrase is normally used by the dictionary compiler to explain the meaning of such a noun.

TYPE E

$$\frac{\mathrm{P}\ [\mathrm{STEM} + \mathrm{ista/ysta}]_{\mathrm{NAg}}}{\mathrm{E} \qquad\qquad Ø} \qquad (11)$$

[batalista : Ø (battle), eksternista : Ø (extern), formista : Ø (form), kameralista : Ø (camera, chamber), maturzysta : Ø (mature), procesualista : Ø (process), reportażysta : Ø (reportage)]

In all such instances it is extremely difficult, sometimes impossible, to find a foreign replica, and consequently Polish agents are translated into English in a roundabout way. Various descriptive phrases may define such units with more or less accuracy, as, for example, 'candidate for an examination from outside a school' rendering Pol. *externista*, 'candidate for the secondary school certificate' used to explain Pol. *maturzysta*, or 'performer of chamber music' which translates Pol. *kameralista*. Such definitions are deprived of any autonomous lexical value and are placed in the dictionary to meet the requirements of its user. The term VACUOUS CORRELATION is proposed here for this type of 'empty' correspondence.

Below, all the five types are shown in the diagram.

$$\text{P [STEM+ista/ysta]}_{\text{NAg}}$$

TYPE A	TYPE B	TYPE C	TYPE D	TYPE E
E [STEM+ist] E	**STEM+er, etc. STEM+ian STEM+ary STEM+ive STEM+ ∅**	**E [STEM+STEM]**	**E [STEM' +Suf]**	**E [–] STEM''**
(conformist, artist)	**(harper, utopian, reactionary)**	**(cavalryman, hockey player)**	**(retailer, pensioner, town-planner)**	
FULL DERIVATIONAL	**PARTIAL CORRELATION**	**LEXICO-DERIVATIONAL CORRELATION**	**LEXICAL CORRELATION**	**VACUOUS CORRELATION**

3. ENGLISH EQUIVALENTS OF P $[-\text{IK}]_{\text{NAg}}$

TYPE A

$$\frac{\text{P [STE+ik/yk]}_{\text{NAg}}}{\text{E [STEM+ic/iac]}_{\text{NAg}}} \tag{12}$$

[agnostyk : agnostic, alkoholik : alcoholic*, alergik : allergic, apoplektyk : apoplectic, astmatyk : asthmatic, cynik : cynic, ekscentryk : eccentric, eklektyk : : eclectic, egocentryk : egocentric, empiryk : empiric*, epileptyk : epileptic, euforyk : euphoric, ezoteryk : esoteric, fanatyk : fanatic, heretyk : heretic, hipochondryk : hypochondriac, histeryk : hysteric, katolik : catholic, klasyk : : classic**, komik : comic*, krytyk : critic, mechanik : mechanic*, melancholik : melancholic, mimik : mimic, mistyk : mystic, neurastenik : neurasthenic, neurotyk : neurotic, paralityk : paralytic, paranoik : paranoiac, perypatetyk : peripatetic, podagryk : podagric, reumatyk : rheumatic, romantyk : romantic*, sceptyk : sceptic, schizmatyk : schismatic, schizofrenik : schizophrenic, scholastyk : scholastic, sklerotyk : sclerotic, stoik : stoic, syndyk : syndic]

TYPE B

a) $$\frac{\text{P [STEM+ik/yk]}_{\text{NAg}}}{\text{E [STEM+(i)st/yst]}_{\text{NAg}}} \tag{13}$$

[algebraik : algebraist, analityk : analyst, botanik : botanist, chemik : chemist, dogmatyk : dogmatist, empiryk : empiricist*, energetyk : energeticist*, eugenik : eugenist, genetyk : geneticist, gimnastyk : gymnast, heraldyk : heraldist, liryk : lyrist*, metafizyk : metaphysicist*, neoklasyk : neo-classicist, numizmatyk : numismatist, fizyk : physicist, pirotechnik : pyrotechnist, pragmatyk : : pragmatist, prozaik : prosaist, romantyk : romanticist*, semantyk : semanticist, somnambulik : somnambulist, strategik : strategist, teoretyk : theorist*]

b) $$\frac{P\,[\text{STEM}+\text{ik/yk}]_{NAg}}{E\,[\text{STEM}+\text{(i)an}]_{NAg}} \qquad (14)$$

[akademik : academician, arytmetyk : arithmetician, diagnostyk : diagnostician, dialektyk : dialectician, dydaktyk : didactician, fonetyk : phonetician, gramatyk : grammarian, historyk : historian, logik : logician, magik : magician, matematyk : mathematician, mechanik : mechanician*, metafizyk : metaphysician*, muzyk : musician, optyk : optician, polityk : politician, praktyk : : practician, statystyk : statistician, taktyk : tactician, technik : technician, teoretyk : theoretician*, tragik : tragedian, elektryk : electrician]

c) $$\frac{P\,[\text{STEM}+\text{ik/yk}]_{NAg}}{E\,[\text{STEM}+\text{er}]_{NAg}} \qquad (15)$$

[sympatyk : sympathizer]

d) $$\frac{P\,[\text{STEM}+\text{ik/yk}]_{NAg}}{E\,[\text{STEM}_{NAg}} \qquad (16)$$

[kanonik : canon]

A cumulative template for types A and B will be as follows:

$$\frac{P\,[\text{STEM}+\text{ik/yk}]_{NAg}}{E\,[\text{STEM}+\text{ic/ist/ian/er/}\emptyset]_{NAg}} \qquad (17)$$

The distribution of suffixes is partly based on the semantic principle. The full correlation type is characteristic of agents denoting people inflicted with some illnesses, e. g. *epileptic*, *hypochondriac*, *neurasthenic*, etc. Deviations from the 'regular' pattern are observed when, for instance, persons engaged in literary activities are referred to, cf. [-ist] in *lyrist*, *neo-classicist*, *heraldist*, *prosaist*, *romanticist*, *semanticist*. Alternations in the suffix among Type B members are relatively frequent, and are accompanied by some degree of semantic differentiation. For instance, *theoretician* 'a person who knows much about theory' differs from *theorist* 'a person forming theories'; *empiric* 'a person relying entirely on practical experience' differs from *empiricist* 'a person using experiments, and *classic* 'an author (artist) of acknowledged experience' from *classicist* 'a follower of classicism in literature and art'. In other cases suffixal differentiation does not lead to a distinct semantic variation, cf. *mechanic*~*mechanician*. The English synonymous pair *metaphysicist*~*metaphysician* does not enter into full derivational correlation with the Polish agent which has the [yk] suffix. We may also stress that apart from one isolated case, *canonic* : *canon*, there are no instances of the correlation with zero.

TYPE C

$$\frac{P\,[\text{STEM}+\text{ik/yk}]_{NAg}}{E\,[\text{STEM}+\text{STEM}']_{NAg}} \qquad (18)$$

a) [laik : layman, chimeryk : chimerical person, flegmatyk : phlegmatic person, impetyk : impetuous person]

b) [elektronik : electronics specialist, epik : epic writer, grafik : graphic artist, klasyk : classical scholar**, lyrik : lyrical poet, medyk : medical student, fotografik : artistic photographer]

On comparing the semantic structures of (18) and (8), that is, lexico-derivational correlations, we observe well-marked distinctions in the heads. The latter denote mostly performers of concrete actions in the group of the [ista] correlatives, cf. [-player, -singer, -racer, -drummer] (23 in 31), whereas the equivalents of [ik] are mostly represented by heads which cannot be labelled as performers, cf. [-man, person, specialist] (9 in 11). It is a clear proof of evident semantic variation between the [ic] and [ist] suffixes which occurs in English.

TYPE D

$$\frac{P\,[\mathrm{STEM}+\mathrm{ik/yk}]_{\mathrm{NAg}}}{E\begin{bmatrix}\mathrm{STEM'}+\mathrm{Suf}\\ \mathrm{STEM''}\end{bmatrix}_{\mathrm{NAg}}} \tag{19}$$

a) [hydraulik : plumber (hydraulic Adj), kleryk : seminarist (clerical), lunatyk : somnambulist (lunatic), systematyk : taxonomist (systematic Adj)]

b) [choleryk : irascible person]

Attention should be called here to discrepancies in the meaning of almost identical pairs, like Pol. *lunatyk* ~ E. *lunatic*, Pol. *systematyk* ~ E. *systematic*, Pol. *hydraulik* ~ E. *hydraulic*, which do not correlate.

TYPE E

$$\frac{P\,[\mathrm{STEM}+\mathrm{ik/yk}]_{\mathrm{NAg}}}{E \qquad \emptyset} \tag{20}$$

[ewangelik : Ø (evangelist), sangwinik : Ø (sanguine)]

In both cases explanatory phrases render the semantic content of the agents ('member of the evangelical Church', 'man of sanguine disposition')

$P\ [\mathrm{STEM}+\mathrm{ik/yk}]_{\mathrm{NAg}}$

TYPE A	TYPE B	TYPE C	TYPE D	TYPE E
E [STEM+ic]	E [STEM+ist STEM+ian STEM+er STEM+ $\varnothing$]	E [STEM+STEM']	E [STEM+Suf STEM'']	E [–]
(fanatic-heretic)	(lyrist, practician, canon)	(layman, lyrical poet)	(seminarist, irascible person)	
FULL DERIVATIONAL	PARTIAL CORRELATION	LEXICO-DERIVATIONAL CORRELATION	LEXICAL CORRELATION	VACUOUS CORRELATION

4. ENGLISH EQUIVALENTS OF P $[-\text{ant}/-\text{ent}]_{NAg}$

TYPE A

$$\frac{P\ [\text{STEM}+\text{ant/ent}]_{NAg}}{E\ [\text{STEM}+\text{ant/ent}]_{NAg}} \qquad (21)$$

a) [apelant : appellant*, aspirant : aspirant, celebrant : celebrant, debiutant : débutant, demonstrant : demonstrant, dyskutant : disputant, elegant : elegant*, emigrant : emigrant, galant : gallant, imigrant : immigrant, kombatant : combatant, komunikant : communicant, konsultant : consultant, lejtnant : lieutenant, manifestant : manifestant, obskurant : obscurant, oficjant : officiant, optant : optant, pedant : pedant, postulant : postulant, predykant : predicant, protestant : Protestant, sierżant : sergeant, sykofant : : sycophant]

b) [adherent : adherent, agent : agent, dekadent : decadent, delikwent : delinquent, impotent : impotent, klient : client, konfident : confident*, korespondent : correspondent, malkontent : malcontent, oponent : opponent, pacjent : patient, penitent : penitent, prezydent : president, regent : regent, rekonwalescent : convalescent, rezydent : resident, student : student, superintendent : superintendent]; also [asystent : assistant, intendent : intendant, konfident : confidant*], and [dyletant : dilettante]

TYPE B

$$\text{a)}\quad \frac{P\ [\text{STEM}+\text{ant/ent}]_{NAg}}{E\ [\text{STEM}+\text{er}]_{NAg}} \qquad (22)$$

[apelant : appealer*, intrygant : intriguer, komendant : commander; dysponent : disposer, abstynent : abstainer*, dysydent : dissenter, interwent : intervener, konsument : consumer, petent : petitioner, pretendent : pretender, producent : producer, repetent : repeater, subskrybent : subscriber]

$$\frac{P\ [\text{STEM}+\text{ant/ent}]_{NAg}}{E\ [\text{STEM}+\text{ator}]_{NAg}} \qquad (23)$$

a) [akceptant : acceptor, gwarant : guarantor; dyrygent : director]

b) [denuncjant : denunciator, demonstrant : demonstrator*, interpelant : . interpellator, kapitulant : capitulator, kolaborant : collaborator*, kooperant : cooperator, spekulant : speculator, symulant : simulator]

Isolated cases:

$$\frac{P\ [\text{STEM}+\text{ant/ent}]_{NAg}}{E\ [\text{STEM}+\text{(i)an//ate//ous//ive//ary//Ø}]_{NAg}} \qquad (24)\ \dots\ (29)$$

[muzykant : musician, partyzant : partisan*]

[repatriant : repatriate]

[ignorant : ignoramus]
[reprezentant : representative]
[plenipotent : plenipotentiary]
[aliant : ally, rebeliant : rebel, sekundant : second]

The English correlatives of Polish agent nouns in [ant/ent] show great flexibility in choosing the suffix, though the pattern of full correlation prevails in most cases. Particularly it is the [ant/ent : er] correspondence which deserves a closer inspection. The difference between the agents in this group of equivalents consists mainly in the replacement of the original Present Participle marker (derived from Latin) by a very productive English [er] agent suffix (22).

We can observe that all twelve nouns in (22) share some features, i.e., all have unstressed prefixes (as opposed to other groups where variations in the stress pattern are seen), all but one consist of three syllables (including the suffix), and all are derived from verbs, like those in (23). The absence of the [ent : ator] correlation ([ant : ator] only is found) is explained by the fact that both suffixes come from different Latin conjugations.

TYPE C

$$\frac{P\,[\text{SEM}+\text{ant/ent}]_{NAg}}{E\,[\text{STEM}+\text{STEM}]_{NAg}} \tag{30}$$

a) [milicjant : militia-man, policjant : policeman]

b) [arogant : arrogant person, ceremoniant : ceremonious person, komisant : commission agent, koncertant : concert performer, laborant : laboratory assistant]

TYPE D

$$\frac{P\,[\text{STEM}+\text{ant/ent}]_{NAg}}{E\left[\text{STEM}'+\begin{pmatrix}\text{Suf}\\ \text{STEM}''\end{pmatrix}\right]_{NAg}} \tag{31}$$

a) [aplikant : apprentice (apply), aresztant : convict (arrest), beneficjant : : incumbent (benefice), defraudant : embezzler (defraud), dywersant : saboteur (diversion), fatygant : gallant (fatigue), figurant : dummy (figure), interesant : : client (interest), komediant : deceiver (comedian), kursant : student (course), okupant : invader (occupy), praktykant : trainee (practice), projektant : designer (project), protokolant : recorder (protocol), ryzykant : gamester (risk), skrupulant : stickler (scruple), szyfrant : cryptographer (cipher)]; [absolwent : graduate (absolve), inteligent : intellectual (intelligence), konkurent : competitor (concur), konwojent : escort (convoy), prokurent : proxy (procure), referent : lecturer (refer), rewident : auditor (revise)]

b) [ekspedient : shop-assistant (expedient), ministrant : choirboy (minister)]

Unlike Type C, Type D is represented by a considerable number of correspondences. It is rather puzzling, since the semantic content of English cognate forms is in many cases very close to the meaning of the corresponding Polish agent substantives, cf. Pol. *defraudant* ~ E. *defraud*, Pol. *projektant* ~ E. *project*, Pol. *okupant* ~ E. *occupy*, etc.

A relatively numerous appearance of the correlatives in Type D confirms that the [ant/ent] suffix is less frequently used in English to form agent nouns than it is in Polish.

TYPE E

$$\frac{\text{P [STEM+ant/ent]}_{\text{NAg}}}{\text{E} \qquad \emptyset} \tag{32}$$

[asekurant : Ø (secure), doktorant : Ø (doctor), dyplomant : Ø (diploma), habilitant : Ø (habilitate), korporant : Ø (corporation), magistrant Ø (magisterial)]

With the exception of [asekurant], and [korporant] the above terms, both denominal and deverbal, denote persons obtaining grades in the university at different stages of the academic career. Differences in terminology lead to the difficulties in forming [illegible] equivalents.

P [STEM+ant/ent]$_{\text{NAg}}$

TYPE A	TYPE B	TYPE C	TYPE D	TYPE E
E [STEM+ant] ent (emigrant, client)	E [STEM+er STEM+(at)or STEM+(i)an STEM+ate STEM+ous STEM+ive STEM+ary STEM+Ø] (consumer, speculator, rebel)	E [STEM+STEM'] (policeman, arrogant, person)	E [STEM'+Suf] STEM'' (embezzler, escort)	E [-]
FULL DERIVATIONAL	PARTIAL CORRELATION	LEXICO-DERIVATIONAL CORRELATION	LEXICAL CORRELATION	VACUOUS CORRELATION

5. ENGLISH EQUIVALENTS OF P [ator]$_{\text{NAg}}$.

TYPE A

$$\frac{\text{P [STEM+ator]}_{\text{NAg}}}{\text{E [STEM+ator]}_{\text{NAg}}} \tag{33}$$

[administrator : administrator, agitator : agitator, dekorator : decorator, denuncjator : denunciator, dyktator : dictator, gladiator : gladiator, ilustrator : : illustrator, imitator : imitator, inicjator : initiator, innowator : innovator, insynuator : insinuator, interpelator : interpellator, kalkulator : calculator, komentator : commentator, konserwator : conservator, konspirator : conspirator, kontynuator : continuator, koordynator . coordinator, kunktator : cunctator, kurator : curator, mediator : mediator, narrator : narrator, nawigator : navigator, operator : operator, orator : orator, propagator : propagator, senator : : senator, sekwestrator : sequestrator, testator : testator], and [amator : amateur, prowokator : provocateur]

TYPE B

a) $$\frac{P\,[STEM+ator]_{NAg}}{E\,[STEM+er]_{NAg}} \qquad (34)$$

[adaptator : adopter, adorator : adorer, cywilizator : civilizer, deklamator : : declaimer, demoralizator : demoralizer, egzaminator : examiner, eksperymentator : experimenter, eksploatator : exploiter, falsyfikator : falsifier, fundator : founder, improwizator : improvizer, informator : informer, inspirator : : inspirer, interpretator : interpreter, klasyfikator : classifier, kodyfikator : codifier, moralizator : moralizer, obserwator : observer, organizator : organizer, pacyfikator : pacifier, plantator : planter, popularyzator : popularizer, racjonalizator : rationalizer, realizator : realizer, recytator : reciter, reformator : : reformer, restaurator : restorer*, triumfator : triumpher, uzurpator : usurper, wersyfikator : versifier]

$$\frac{P\,[STEM+ator]_{NAg}}{E\,[STEM+or]_{NAg}} \qquad (35)$$

[donator : donor, gubernator : governor, imperator : emperor, wizytator : visitor*]

$$\frac{P\,[STEM+ator]_{NAg}}{E\,[STEM+ist]_{NAg}} \qquad (36)$$

[akompaniator : accompanist, plagiator : plagiarist]

The predominance of partial over full correlation in the first two types is a feature characteristic of the [ator] group. Almost all English agents here fall within two major categories: those with [ator], and those with [er] agent markers. Such a distribution can be easily explained, since the majority of English nouns (33) are derived from verbs in [-ate], while those in (34) are derived from verbs with various terminations, e.g. *agitator* (<agitate), *decorator* (<decorate), *denunciator* (<denunciate), and *adapter* (<adapt), *declaimer* (<declaim), *examiner* (<examine), etc. But particularly active in forming

the [er] agents corresponding to Polish [ator] substantives are the English verbs in [-fy, -ize], e.g. *qualifier* (<quality): *kwalifikator*, *pacifier* (<pacify): *pacyfikator*; *popularizer* (<popularize): *popularyzator*, *rationalizer* (<rationalize): *racjonalizator*, etc.

There remain, however, a few nouns which are not derived from English verbs in [-ate], though they end in the [ator] suffix. Such nouns are imported as whole units directly from Latin or French, e.g. *gladiator*, *commentator* (*to commentate* is a back formation), *cunctator*, *provocateur*, etc.

TYPE C

$$\frac{\text{P [STEM}+\text{ator]}_{\text{NAg}}}{\text{E [STEM}+\text{STEM}']} \tag{37}$$

[restaurator : restaurant owner]

TYPE D

$$\begin{array}{l} \text{P [STEM}+\text{ator]}_{\text{NAg}} \\ \text{E [STEM}'+\text{Suf} \\ \qquad\qquad \text{STEM}'']_{\text{NAg}} \end{array} \tag{38}$$

a) [instalator : fitter (install), lokator : lodge (locate), sublokator : subtenant (sub+locate), terminator : apprentice (termination), taksator : appraiser (taxation)]

b) [charakteryzator : make-up-man (characterize), ordynator : ward head (ordination), rejestrator : record-keeper (register), prokurator : public prosecuor (procure)]

$$\text{P [STEM}+\text{ator]}_{\text{NAg}}$$

TYPE A	TYPE B	TYPE C	TYPE D
E [STEM+ator	E STEM+er	E [STEM+STEM']	E [STEM'+Suf STEM'']
(agitator, orator)	STEM+or STEM+ist (declaimer, donor, plagiarist)	(restaurant owner)	(fitter, record-keeper),
FULL DERIVATIONAL	PARTIAL CORRELATION	LEXICO-DERIVATIONAL CORRELATION	LEXICAL CORRELATION

7. CONCLUDING REMARKS

The system of correlations presented and discussed on the preceding pages shows how complicated are the lexical relations between Polish and English agent substantives with common etymological stems. Frequent deviations from the regular, i.e. full correlation pattern, raise serious problems for the learner of English. Mechanical translation of particular components of Polish agents into English may lead to nonexistent lexical items, or, at best, to a noun with correct derivational structure, but having the meaning radically different from the one he tries to arrive at.

The table below gives a statistical picture of the relations among four basic suffixes in five correlation types. The figures enclosed parenthetically show the number of lexical units in particular types.

	Total number of English correlatives (100%)	Derivational Full TYPE A	correlation Partial TYPE B	Lexico-derivational c. TYPE C	Lexical correlation TYPE D	Vacuous corr. TYPE E
P [ista/]	%	79.2	8.0	6.4	5.0	1.4
[ysta]	(485)	(384)	(39)	(31)	(24)	(7)
P [ik/]	%	37.4	45.9	10.2	4.6	1.9
[yk]	(107)	(40)	(49)	(11)	(5)	(2)
P [ant/]	%	39.0	28.0	5.9	22.0	5.1
[ent]	(118)	(46)	(33)	(7)	(26)	(6)
P [ator]	%	36.9	51.2	1.2	10.7	0
	(84)	(31)	(43)	(1)	(9)	(0)

It must be strongly stressed that the percentages obtained in the analysis should be treated as approximations, as there exists a great fluency in the frequency of use of certain Polish and English forms. Our attention was focussed on the nouns showing as much similarity in the structure as possible, that is, on those following the patterns of derivational and lexico-derivational correlations (Types A, B, C).

From the analysis of the data contained in the table some inferences can be drawn:

1. The smallest risk of a 'segmental', i.e. one-for-one translation is run in the case of the [ista/ysta] agents. In our investigation 79.2 p.c. of the units show full derivational correlation type.

2. 'Segmental' translation is particularly fallible when the [ik/yk] and [ator] suffixes appear in Polish agent substantives. In about 50 p.c. of instances a replacing suffix is needed to obtain the required agent.

3. In English there are numerous equivalents of the P [ant/ent] suffix which are formed by means of stems unrelated to those in the corresponding Polish nouns, though the lexicon of the former contains etymologically cognate stems.

4. If errors are made in the translation from Polish to English they are due to different kinds of linguistic interference: suffixal in Type B, lexico-suffixal in Type C, and lexical in TYPES D and E.

APPENDIX

Below a full list of the English Type A correlatives of P [ista/ysta] agents is given. Because of its length (384 nouns) the list has not been included into the paper. To save space the English forms only are given.

abolitionist, absolutist, abstractionist, accordionist, activist, Adventist, Africanist, alarmist, alpinist, altruist, Americanist, Anabaptist, anaesthetist, anarchist, anatomist, Anglicist, animalist, annalist, annexationist, antagonist, anthologist, antifascist, antifeminist, aphorist, apriorist, aquafortist, Arabist, archivist, artillerist, artist, associationist, atheist, atomist, autonomist, Averroist

Baptist, behaviourist, belletrist, Bhuddist, Biblicist, bigamist, billiardist*, Bonapartist, Byronist

cabalist*, Calvinist, Camorrist, canonist, capitalist, Carlist, caricaturist, casuist, catastrophist, cellist, centralist, centrist, Chartist, chauvinist, clarinettist, classicist, clavichordist, collaborationist, collectivist, colonialist, colonist, communist, comparativist, conceptualist, conclavist, conformist, Confucianist, constitutionalist, constructivist, contrabandist, contrabassist, contrapuntist, conversationalist, copyist, cornetist*, cosmogonist, counter-revolutionist*, creationist, cubist, cultist, cyclist, cymbalist

daguerreotypist, Daltonist, Darwinist, defeatist, deist, Dekabrist, dentist, documentalist, Donatist, dosimetrist, druggist, dualist

economist, egoist, egotist, emotionalist, empiri(ci)st, encyclopaedist, equilibrist, Esperantist, essayist, etymologist, eudaemonist, evangelist, evolutionist, exhibitionist, existentialist, exorcist, expressionist, experimentalist, extremist

falsettist, fascist, fatalist, faunist, federalist, feminist, fetishist, feuilletonist, finalist, fideist, financist, florist, folklorist, formalist, futurist

Germanist, Girondist, Greekist, guitarist

harmonist, hedonist, Hellenist, hobbyist, humanist, humorist, hygienist

idealist, idyllist, illusionist, immoralist, imperialist, impressionist, indifferentist, individualist, Indo-Europeanist, Indianist, instrumentalist, interactionist, internationalist, internist, introspectionist, intuitionist, ironist, Irredentist, Islamist, isolationist

Jansenist, jurist

labourist, Latinist, legalist, legitimist, Leninist, librettist, linguist, linotypist, loyalist

machinist, madrigalist, magnetist, mandolinist, manicurist, mannerist, Maoist, Marxist, masochist, materialist, maximalist, mechanist, medalist, medievalist, melodist, memoralist, Mendelist, mercantilist, mesmerist, Messianist, metaphorist, metaphysicist, methodist, metrist, militarist, miniaturist, imnimalist, misogynist, modernist, monarchist, monist, monogamist, monographist, monologist, monopolist, monotheist, moralist, morphinist, mosaicist, motor cyclist, motorist

Napoleonist, nationalist, nativist, naturalist, negativist, neocolonialist, neohellenist, neorealist, neo-Thomist, neovitalist, nepotist, neutralist, nihilist, noctambulist, nominalist, non-conformist, nudist

objectivist, oboist, obscurantist, obsessionist, obstructionist, occasionalist, occidentalist, occultist, oculist, operationist, opportunist, oppositionist, optimist, organist, Orleanist, orientalist, ornamentalist, orthopaedist

pacifist, panegyrist, pantheist, pantominist, papist, paradoxist, parodist, particularist, passivist, pedicurist, perfectionist, personalist, pessimist, phalansterist, phenomenalist, philatelist, philhellenist, philumenist, physiognomist, pianist, pietist, pluralist, pointilist, polemist, Polonist, polygamist, polygenist, polyphonist, polytheist, populist, portraitist, positivist, possibilist, post impressionist, pragmatist, primitivist, prohibitionist, problemist, prologuist, propagandist, prosodist, protagonist, protectionist, protocolist, psalmist, psalterist, publicist, punctualist, purist

quietist

raci(ali)st, rationalist, reactionist*, realist, receptionist, recidivist, recordist, Redemptorist, reformist, regionalist, relativist, reservist, revisionist, revolutionist*, rigorist, Romanist, routinist, royalist, ruralist

sadist, Saint-Simonist, Satanist, saxophonist, scenarist, schematist, scientist, Scotist, secessionist, segregationist, semi-finalist, seminarist, Semitist, sensualist, sentimentalist, separatist, signalist*, sinecurist, slalomist, Slavist, socialist, social reformist, somnambulist, sophist, soloist, sopranist, specialist, spiritist, spiritualist, statist, structuralist, stylist, subjectivist, surrealist, symbolist, symphonist, syndicalist

Talmudist, Taoist, taxonomist, telegraphist, telephonist, teletypist*, terrorist, theist, Thomist, tourist, traditionalist, transformationalist, transformist, Trappist

unionist, universalist, urbanist

vaudevillist, verist, violinist, violist, vidualist, vitalist, vocalist, vulcanist

Zionist, zitherist.

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JUŻ, *JESZCZE*, AND THEIR ENGLISH EQUIVALENTS

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One of the problems encountered by a Pole in learning English is the correct choice of the forms corresponding to the Polish items *jeszcze* and *już*. A teacher of English in this country is very likely to come across "sentences" like *He isn't here already* ('Już go tu nie ma') or *Have you finished already?* (to render the Polish unemphatic *Czy już skończyłeś?* The point of grammar involved has been overlooked in many handbooks; no mention of it is made in Prejbisz (1958) or in Prejbisz, Jasińska, Kryński (1959), for instance; the teacher of English, then, usually has to furnish the pupil with ad hoc comments whenever a mistake occurs, feeling on the whole that the explanation is inadequate. The typical explanation will make reference to the English words *already*, *yet* and *still*, and contain roughly the information found, for instance, in Smólska and Zawadzka (1969:195 - 6) "Wyraz *yet* jest odpowiednikiem polskiego ,,jeszcze" w zdaniach przeczących [...] Wyraz *yet* jest odpowiednikiem polskiego ,,już" w zdaniach pytających [...] Wyraz *already* jest odpowiednikiem polskiego ,,już" w zdaniach twierdzących [...]. Wyraz *still* jest odpowiednikiem polskiego ,,jeszcze" (,,wciąż jeszcze") w zdaniach twierdzących. Thus, the explanation matches *jeszcze* with *yet* in negative sentences, *jeszcze* with *still* in affirmatives, *już* with *yet* in questions and *już* with *already* in affirmatives. This description is entirely correct in directing the learner's attention to the fact that Polish has two forms where English employs three, and in pointing out the interrelations between the form of a sentence (affirmative, negative or interrogative) and the choice of the lexical item. It is clear that the connections are systematic, and that the systems of English and Polish differ at this point.

Before indicating some inadequacies of descriptions of the type illustrated above, let us exclude certain uses of *już* and *jeszcze*, as well as of *still*, *yet*, and *already*, which do not exhibit the systematic behaviour just mentioned; these will be various kinds of idiomatic uses, and any other applications of the five words that do not involve reference to time.[1] It is within the temporal uses that the greatest confusion arises. Some examples of the uses to be excluded can be found in the following set of sentences (based mostly on *Słownik języka polskiego* and *NED*):

Myślałem, że się ucieszysz, a ty się jeszcze gniewasz ('I thought you'd be pleased, and you aren't; you even are angry');
jeszcze jeden mazur dzisiaj ('let's dance the mazurka once more tonight');
jeszcze czego!; *jeszcze jak*! (expressive uses);
nie, i już ('no, and that's final')
już ty się nie martw ('don't you worry') (expressive use);
still another thing;
still louder;
The day was hot; *still, she was wearing her fur coat* (adversative use);
a yet deeper colour;
and yet.
Already does not appear to be employed non-temporally.

Among the temporal uses of *już* and *jeszcze* there is one that should be excluded on the grounds that it does not form part of the system to be described: in a sentence like *Jeszcze za króla Alfreda pisali tutaj po angielsku* ('They wrote English here already in the days of King Alfred') one of the readings of *jeszcze* 'as long ago as', and it can be paraphrased, in the same sentence, by *już*.

As regards the remaining uses of *już* and *jeszcze*, and their corresponding English items, we notice in the first place that the two systems exhibit certain similarities. Thus, *już* and *jeszcze*, just like *already* and *yet*, seem to be complementary in affirmative and negative sentences: the occurrence of either of the two items is conditioned by the presence or absence of negation in the sentence.[2] Besides, all the words mentioned are interpretable with respect to some point of temporal reference, whether expressed or implied.[3] Finally, sentences employing the items in question mostly suggest something as to the occurrence of the state of affairs mentioned in the sentence before or after the point of reference.

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[1] In view of the practical bias of this paper, no attempt will be made here to discuss the grammatical status of the items in question. Suffice it to say that until recently the three English words (in their temporal use) were generally regarded as adverbs of time (e.g. in Jacobson 1964). Traugott and Waterhouse propose to treat some of the applications of *yet* and *already* as surface exponents of the feature PERFECT, and suggest further that *still* could be related to the feature PROGRESSIVE in a similar way. T. Krzeszowski has drawn my attention to the modal quality of all these items. The situation in Polish grammar has been similar: traditionally *już* and *jeszcze* have been described as adverbs of time (cf. Szober 1969:314), but their special nature has been noted occasionally; thus, Klemensiewicz (1961:26 - 7) classifies them among what he calls 'dodatkowe wyznaczniki intelektualne', and Jodłowski (1949) classes them together with such words as *także*, *tylko*, *nawet*, *zwłaszcza*, *przynajmniej*, which he calls 'sytuanty', clearly a category different from temporal adverbs. In pedagogic grammars the traditional view is adopted (cf. Smólska and Zawadzka 1969:196-7, Prejbisz, Jasińska, Kryński 1959:230).

One important fact that must not be overlooked in any description of English equivalents of *jeszcze* and *już*, and which tends to be forgotten, is that both these Polish words may point to a time either preceding or following the moment of temporal reference:

(1) *Tomek jeszcze nie przyszedł* ('Tom hasn't come yet')
(2) *Marek już skończył książkę* ('Mark has already finished the book')
(3) *Jeszcze się zobaczymy* ('We'll be seeing each other')
(4) *Potopu już nie będzie* ('There will be no deluge again').

Sentences (1) and (2) refer to the situation that has existed up to the point of reference (here identical to the time of uttering the sentence); (3) and (4) deal with a time future with respect to the point of reference. This distinction between the two meanings of *już* and *jeszcze* in Polish has nothing to do with different tenses occurring in our examples: the sentences below point forwards from the point of reference even though the tense used is past:

(5) *Tomek już nie przyszedł* ('From that time on Tom never came again')
(6) *Jeszcze posiedzieliśmy* ('We stayed a bit longer').

When setting down rules for the pupil we tend to account only for the meaning of *już* and *jeszcze* illustrated in (1) and (2). Let us, then, start our discussion from this, already partly described, aspect of *już* and *jeszcze*. Verb phrases fall into two categories with respect to their cooccurrence with *już*, *jeszcze* and negation:

(a) durative and literative verb phrases, such as *płacić podatki*, *przychodzić*, *stać*, *szumieć*, *rozmawiać* ('pay taxes, come (repeatedly), stand, rustle, talk')
(b) momentary verb phrases, like *zapłacić podatek*, *przyjść*, *ukazać się*, *zdziwić* ('pay one's tax (single such act), come, appear, astonish').

Verb phrases of type (a) will allow either *już* or *jeszcze*, no matter whether the sentence is negated or not:

(7a) *Jeszcze* (*wtedy*) *nie płaciłem podatków*

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[2] That *yet* and *already* are interrelated with negation is well demonstrated in Traugott and Waterhouse 1969. A similar behaviour of *już* and *jeszcze* is noted in *Słownik języka polskiego* (vol. III: 408): 'W wielu wypadkach w zdaniach zaprzeczonych, odpowiadających zdaniom twierdzącym z użyciem *jeszcze*, wyraz ten bywa zastąpiony przez *już nie* i odwrotnie — użyciom *jeszcze nie* odpowiada w zdaniach twierdzących wyraz *już*'. The same observation, slightly reworded, appears on p. 446.

[3] Cf. Jacobson (1964:225): 'The time to which *already* relates is usually understood from the context [...] Sometimes, however, this time is expressed in the form of an adverbial at the beginning or end of the sentence or clause.'

(7b) *Już płaciłem podatki*
(8a) (*Wtedy*) *już nie płaciłem podatków*
(8b) (*Wtedy*) *już nie płaciłem podatki*

It is interesting to note that the (a) sentences are opposites of (b) in each pair, if the negation is construed as referring to the sentence as a whole: *Czy to prawda, że wtedy płaciłeś podatki? — Tak, już płaciłem,* or — *Nie, jeszcze nie.* On the other hand, if the question concerns the appropriateness of the use of *już* and *jeszcze*, it is the two (a) sentences that are opposites of each other, and so are the (b) sentences: *Czy* (*wtedy*) *już płaciłeś podatki* (emphasis on *już*) *Nie, jeszcze płaciłem.*

Now, when we consider the English equivalents of sentences (7a) - (8b), it is obvious that only in the first two examples can *already* or *yet* be used:

(9a) *I wasn't paying taxes yet*
(9b) *I was already paying taxes*

The second pair of sentences will require the use of *still* in the affirmative and *any more* or *any longer* in the negative:

(10a) *I wasn't paying taxes any more*
(10b) *I was'nt still paying taxes*

Any more (or *any longer*) and its connection with *still* is usually disregarded when one thinks of English equivalents of *już* and *jeszcze.*

The second type of verb phrases, the momentary verb phrases, do not occur with *jeszcze* and *już* so freely:

(11) *Zapłaciłem już podatek* ('I've already paid my tax')
(12) *Jeszcze nie zapłaciłem podatku* ('I haven't paid my tax yet')
(13) **Jeszcze zapłaciłem podatek*
(14) **Już nie zapłaciłem podatku.*

The starred sentence (13) is of course grammatical, but not in the meaning intended; i.e. *jeszcze* can be used here in the sense of 'in addition to other things'. Both (13) and (14) are also grammatical if *już* and *jeszcze* are intepreted as pointing forwards from the moment of temporal reference, but this is not the interpretation we are dealing with at the moment. Sentence (14), moreover, can be grammatical if *nie zapłaciłem* is understood as denoting a positive action, e.g. in a situation when someone is required to pay his tax at a definite time and deliberately refuses to do it. It seems that sentences of this kind, where only the verb phrase is negated, ought to be treated as ordinary affirmative sentences containing a negated element, rather than as negative sentences. Momentary verb phrases in Polish, then, admit of only *jeszcze* in negative sentences and only *już* in affirmatives. *Już* and *jeszcze* are not in contrast here, and their distribution fully matches that of *already* and *yet* in English.

The questions corresponding to the four sentences (7) and (8) in Polish are:

(15a) *Czy jeszcze nie płaciłeś podatków?*
(15b) *Czy już płaciłeś podatki?*

(16a) *Czy już nie placileś podatków?*
(16b) *Czy jeszcze placileś podatki?*

If no feeling of surprise or expectation is to be conveyed by the question, the English equivalents of the above sentences will contain *yet, yet, any more* and *still*, respectively. This means that the rules generally given for the employment of *already, yet* and *still*, supplemented with a statement about the relation between *still* and *any more*, will hold in negative questions as well, with the provision that if a sentence is both interrogative and negative, the latter feature takes precedence over the former, thus determining the choice of the word to render *już* or *jeszcze*.

This quite "regular" situation is complicated by factors not normally taken into account in formulating rules of pedagogic grammars. Some such cases are illustrated in the following sentences:

(17) *Have you already got a reservation?*
(18) *I'm still not so certain*
(19) *Many people don't see it still*
(20) *I think you'll find that you don't still have the gun in your possession* (spoken in answer to *Because I have the gun safely in my possession*)
(21) *This is the queerest thing yet*
(19) *Many people don't see it still*
(20) *I think you'll find that you don't still have the gun in your possession*
(22) *Only a hundred are yet written*
(23) *I don't think you yet grasp the full consequences.*

Sentence (17) illustrates a type amply discussed by Traugott and Waterhouse (1969), who suggest that *already* in questions implies an element of surprise. The use of *already* in interrogatives or in negative interrogatives (like *Haven't you done it already?*) can be termed a marked use, then, while *yet* remains the unmarked item in these contexts. An explanation can be advanced along the same lines for the employment of *still* in (18) and (19). *Still* in these sentences is a marked item, expressing surprise at or emphasis on the fact that a state of affairs opposite to that expressed by the verb phrase of the sentence has not begun; the unmarked item in these sentences would be *yet*. Sentence (20) is most unusual in that it contains *still* not as a marked substitute for *yet*, but rather instead of *any more*. Instances of this kind are rare, and the case in hand is best explained in terms of the situation: the statement mimics, ironically or for some other purpose, a previous statement. Let us note, incidentally, that in Polish it would be impossible to retain *jeszcze* in such a situation: the only way to render sentence (20) would be by means of *nieprawda, że*.

Examples (21), (22) and (23) do not lend themselves to a similar explanation. *Yet* in (21) and (22) can be paraphrased with *as yet* and it corresponds to the Polish *dotychczas* or *jak dotąd*. Thus, the sentences do not have immediate relevance to our subject and will not be further discussed. Let us merely mention that the explanation for the occurrence of *yet* in these contexts in English (i.e. with the superlative degree of adjectives, and with *only*) should be sought in the general interdependence between the temporal *yet* and negation. If Seuren's (1970) analysis of the comparative is correct, and if it could be extended to include the superlative as well (for instance, by relating the superlative and the comparative as in Jespersen 1965:244 - 5), the occurrence of *yet* in (21) and similar structures would be an instance of a more general principle; the affinity of *only* to negation, which might be used to account for (22), is noted in Horn (1969).

Sentence (23) appears to illustrate a grammatical difference between Polish and English regarding the way that negative contexts operate. Traugott and Waterhouse (1969) explain structures of this sort as due to negative raising. It is not certain whether negative raising exists in Polish, but if it did, it would probably serve to account for such synonymous pairs as:

(24a) *Sądzę, że już go tu nie ma* ('I think he isn't here any more')
(24b) *Nie sądzę, żeby jeszcze tu był* ('I don't think he's here any more)'
(25a) *Sądzę, że go tu jeszcze nie ma* ('I think he isn't here yet')
(25b) *Nie sądzę, żeby tu już był* ('I don't think he's here yet') Let us note that (26b), below, cannot serve as a paraphrase of (26a):
(26a) *Sądzę, że jeszcze nie zapłacił podatku* ('I think he hasn't paid his tax yet')
(26b) **Nie sądzę, żeby jeszcze zapłacił podatek.*

In Polish, then, *jeszcze* and *już* are sensitive to the presence of negation in the same simple sentence in surface structure.

The special marked uses of *still* and *already* as illustrated in (17) - (19) are difficult for the Polish learner, because there is no lexical contrast between the marked and unmarked usage in Polish. The difference in emphasis does exist, of course, but it is rendered by means of stress. For instance, the sentence

(27) *Czy już masz rezerwację?*

can be spoken in two ways, depending on whether the speaker wishes to convey his surprise at the booking been done (so early) or not. Emphasis on *jeszcze* can be achieved by stressing the word contrastively, or sometimes by strengthening it with *wciąż*. This difference (stress in Polish vs. lexical contrast in English) is certainly important enough to be taken note of in English grammars for Polish learners.

Let us now turn briefly to *już* and *jeszcze* as used referring to a time later than the point of temporal reference. Some examples are:

(28) *Zosia jeszcze (za)tańczyła* ('Sophia danced afterwards')
(29) *Zosia już nie (za)tańczyła* ('Sophia didn't dance afterwards').

The main point about this use of *jeszcze* and *już* is that the former can only appear in non-negative sentences, whereas the latter only occurs in negatives.

This holds no matter whether the verb phrase is momentary or durative. The English equivalent of this kind of *jeszcze* is *still*:

(30) *Jeszcze to zrobisz — You'll do it still.*

However, the learner ought to be told that in very formal English (or in archaic English) *yet* can occasionally substitute *still*:

(31) *You'll love me yet.*

There is some difficulty in finding an English equivalent for the type of *już* we are discussing, though it might appear that *any more* should be the correct item. While *any more* is appropriate with durative and iterative verb phrases, such as

(32) *Sophia didn't dance any more*

(33) *I shall not stay here any longer,*

it will not always be suitable with momentary verb phrases. In order to see that, we must consider the presuppositions of *już* and *jeszcze* as used to refer to a time future with respect to the point of reference. The sentence *Zosia już nie tańczyla* presupposes that Sophia had danced before the point of reference that the speaker has been at the place called *tu* for some time before making that statement. Now, when we say *Tomek już nie przyjdzie*, there is no presupposition here as to Tom's previous coming: it is possible to utter the sentence *Tomek tu nigdy nie byl i już tu nie przyjdzie* ("Tom has never been here, and he will not come here in future'). It appears, then, that English has no equivalent for the Polish *już* with future reference when used with momentary verb phrases: *any more* presupposes earlier occurrence of the event described in the sentence, and so the sentence *Tom has never been here, and he won't come any more* is inappropriate; *never*, or *now* placed initially, which seem to be other plausible choices, as in *Tom will never come here*, or *Now, Tom will not come here*, both carry additional meanings, not found in the Polish *już*.

It is hoped that this study, dealing with some difficulties in the choice of English equivalents for *już* and *jeszcze*, can contribute towards a complete and coherent description of these items in the Polish-English contrastive grammar.

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NEGATION AND COREFERENCE IN ENGLISH AND POLISH

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In 1969 Karttunen noticed that negation, both syntactic and lexical cannot establish reference, for example

(1) John didn't manage to find an apartment.
(2) The apartment has a balcony.

or

(3) John forgot to write a term paper.
(4) He cannot show the term paper to the teacher.

Likewise in Polish, we cannot have the following sequences:

(5) Jankowi nie udało się znaleźć mieszkania.
(6) Mieszkanie ma balkon.

and

(7) Janek zapomniał napisać referat.
(8) (On) może pokazać referat nauczycielowi.

There is also a group of verbs (modal) which do not allow to establish reference, for example in English

(9) Seymour wants a knife.[1]
(10) The knife is sharp.

and in Polish

(11) Seymour chce nóż.
(12) Nóż jest ostry.

As Karttunen (1969:9) concludes, the common feature of negation and modal verbs (including such verbs as *want*, *plan*, *expect*, etc.) is that they represent "a yet untrue proposition at the time specified by the tense and time adverbials in the main clause"

Notice, however, that if we use a modal verb in the sentence following a negative sentence, the sequence will be correct, e.g.

(13) John didn't manage to find an apartment.

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[1] In its non-specific reading. What appears here to be an ordinary non-specific object NP fails to establish a referent, although the sentence is affirmative assertion.

(14) The apartment must have a balcony.
or in Polish
(15) Janek nie znalazł mieszkania.
(16) Mieszkanie musi mieć balkon.

But it is not the opening sentences (13) and (15), it seems, that establish a referent but some elided sentence like perhaps

(17) John is still looking for an apartment.
(inserted between (13) and (14)), and
(18) Janek nadal szuka mieszkania.
(between (15) and (16)).

This elipsis may be compared to such sentences as (20) and (22)

(19) Do you have a car?
(20) Yes. The car is red.
(21) Czy masz samochód?
(22) Tak. Samochód jest czerwony.

where it is not the question that establishes the referent but an elided sentence like

(23) (Yes.) I have a car.
(24) (Tak.) Mam samochód.

Since, as has been demonstrated, negative sentences with an indefinite noun are unable to establish reference, a question arises why this is so and what meaning the indefinite nouns have in these sentences. It must be remembered first, that the normal sentence stress falls on the indefinite noun if such is present (cf. Szwedek 1976).

In 1972 Jackendoff described a phenomenon called "association with focus" (where focus according to Jackendoff is any element or elements under or within the range of the sentence stress). One of the elements that associates with focus is negation. Take (25) as an example:

(25) I haven't bought a book.

With the sentence stress on *a book*, negation is associated with the noun, with the stress on *bought* it is associated with the verb. In both cases the association of negation with focus says: *not X*, where *X* is the stressed item, that is

(26) I haven't bought a *book* (but I have bought a bicycle).
(27) I havn't *bought* a book (but I have stolen a book).

In both cases the result is a contrastive reading of the stressed element. (The full interpretation of (26) is *I have bought something, but what I have bought is not a book but a bicycle*, and of (27) is *I have done something with a book, but what I have done is not buy but steal.*) The 'association with focus' phenomenon explains why indefinite nouns in the scope of negation cannot establish reference ((a) the existence of the referent is denied if the noun is stressed, (b) the resulting contrastive interpretation preserves coreferentiality relations of the preceding sentence) and why they have a contrastive interpretation. It seems that the most 'neutral' interpretation of (25) is with the sentence stress on the negative particle (including the element to which it is structurally attached) which is the 'new' information in the sentence. A heavy stress on the negative particle will make the stem to which it is attached contrastive. For example:

(28) I *haven't* bought a book (but I *will* buy a book).

There is another reading possible for (26), a reading similar to the interpretation of the noun in

(29) I don't remember a word (=a single word).

The difference between the two interpretations seems to be reflected in different intonations contours, but this problem requires a more extensive and detailed study (see also Jackendoff (1972) for some interesting observations).

Let us now consider negation in sentences with the definite article in relation to the sentence stress, as in

(30) I haven't bought the book.

(31) The man wasn't hitting the woman.

In affirmative equivalents of (30) and (31) the stress naturally falls on the verb (cf. Szwedek 1976). All other stress placement results in a contrastive reading. In (30) and (31) any position of the sentence stress seems to yield a contrastive interpretation, except with the stress on the negation itself (again, including the element to which negation is structurally attached). Compare how sequence sentences (33), (34) and (35) fit in the context of (32):

(32) Have you *bought* the book?

(33) I haven't bought the *book.*

(34) I haven't *bought* the book.

(35) I *haven't* bought the book.

(33) is clearly contrastive in meaning, in agreement with what was said above about the sentence stress in affirmative sentences. The stress on the verb in (34), which for affirmative sentences has been defined as normal, makes the verb contrastive due to "focus association with negation". (35) seems to be the most natural response to (32) although with a stronger stress it may also have a contrastive meaning.

In general the stress placement in negative sentences is in agreement with the rules of stress placement and its interpretation in affirmative sentences. The normal sentence stress in negative sentences could be described as falling on the "new" element which in this case is the negative particle *not* itself. Thus (35) will have the form of (36)

(36) I have *not* bought the book.

Since the shortened form *n't* is not a syllable and cannot bear any stress, the stress is shifted to the element to which *not* is attached.[2]

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[2] There is, of course, a difference in emphasis of which I have no explanation. Notice also the impossibility of I *have* not bought the book.

Let us now consider the situation in Polish, examining sentences similar to the English examples discussed above. We will take (37) as the opening sentence:

(37) Kupiłeś książkę?
(Bought you book)

The answer to (37) would seem to have four possible configurations of word order and sentence stress:

(38) Nie kupiłem *książki*.
(Not bought I book (Acc))
(39) Nie *kupiłem* książki.
(40) Książki nie *kupiłem*.
(Book (Acc) not bought I)
(41) *Książki* nie kupiłem.

Of these four possibilities, however, (39) is the most natural sequence sentence to (37). The nouns in (38) and (41) have a clearly contrastive interpretation. (38) is similar to (26) with the sentence stress on the noun, and since it cannot be referent-establishing it is contrastive.[3] Also the stressed verb in (40) has a contrastive meaning with three readings: (a) the lexical morpheme of the word is contrasted — *Książki nie kupiłem ale dostałem*; (b) the past tense marker is contrasted — *Książki nie kupiłem ale jeszcze kupię*; (c) the whole verb phrase is contrasted — *Książki nie kupiłem ale za to byłem w kinie*. In the last case the noun *książka* is within the scope of negation although it is to the left of the negative particle. (38) and (41) are clear cases in that the condition of the relation between the sentence stress and coreference is violated and so they make no sense as sequence sentences to (37), unless in their contrastive meaning (although I have some doubts as to the correctness of (41)).

It is interesting to note that in (39), as in (35) in English, the sentence stress (non-emphatic) on the verb means that the whole verb phrase is negated (comparing this to (35) we could say that the whole verb phrase is negated in (39) as if the negative particle was attached to the verb *kupiłem* (cf. English *haven't*). Notice that also in Polish we can have the sentence stress on the negative particle *nie*.

(42) Masz książkę?
(Have you book (Acc))
(43) *Nie* mam książki.
(Not have I book (Gen))

where the sentence stress on *nie* is the only possibility; we cannot have

(44) Nie *mam* książki.

The difference in the stress between (39) and (43) is due to some Polish stress rules which account also for the place of the stress in *do* mnie (to me) and do *Ciebie* (to you). We never have *do* Ciebie. Notice also that (39) may have the stress on the negative particle:

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[3] I.e., since the existence of a referent is denied by "negation association with focus" if it is stressed it must be contrastive — not X but Y.

(45) *Nie* kupiłem książki.

particularly when the object is deleted.

Another interesting question concerning examples (38) - (41) is whether the nouns in these sentences are interpreted as coreferential or noncoreferential. To find this out we will make the opening sentences clear beyond any doubts with respect to coreferentiality by adding the indefinite pronoun *jakiś* in (46) and the demonstrative pronoun *ten* in (47). (38) - (41) are repeated for convenience.

(46) Kupiłeś jakąś książkę?
(47) Kupiłeś tę książkę?
(38) Nie kupiłem *książki*.
(39) Nie *kupiłem* książki.
(40) Książki nie *kupiłem*.
(41) *Książki* nie kupiłem.

It is clear that (41) is not compatible with either (46) or (47). (41) could have *Nie kupiłeś wstążki* as the opening sentence which would require emphasis on the missed or misunderstood noun. The noun would then have a contrastive reading. Also (38) with an emphatic stress may have this meaning. However, (38) has another reading compatible with both (46) and (47), also expressing contrast but requiring continuation, as in (48)

(48) Nie kupiłem *książki* bo musiałem kupić chleb.

It is obvious that the noun under discussion in (48) may be interpreted as either definite or indefinite (compatible with both (46) and (47)) depending on the preceding context. This will not seem particularly unusual if we remember that contrastive stress may fall on any element, including nouns with coreferential as well as noncoreferential interpretation, and the sentence with such a stress preserves coreferentiality relations of the previous sentence.[4]

As to the remaining sentences (39) and (40), they are correct sequence sentences to both (46) and (47) and have two readings: a) contrastive, with a heavy stress on the verb, as in

(49) Nie *kupiłem* książki ale ukradłem.
(50) Książki nie *kupiłem* ale ukradłem.

b) what may be called 'normal' reading, i.e. such in which the whole verb phrase of the opening sentence is negated (without changing any relations, including coreferentiality, within the verb phrase). For example

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[4] This seems to be quite natural since the meaning of the contrastive stress is: not X which has just been mentioned (be it 'new' or 'given' information) but Y (which may also be 'new' or 'given').

(51) Nie *kupiłem* książki ale za to byłem w kinie.

(52) Książki nie *kupiłem* ale za to byłem w kinie.

Examples (49) and (50) are formally different from (51) and (52) in the intensity of the sentence stress and intonation (cf. also Jackendoff 1972). The coreferential or noncoreferential relations cannot be determined in either sentences with contrastive reading or sentences with 'normal' interpretations, due to such phenomena as negation association with focus, and negation of the whole verb phrase.

It has been found that negative sentences cannot establish reference, and that coreferentiality relations of the previous sentence are preserved for the following reasons:

a) Negation always associates with the sentence stress. With the sentence stress on the 'new' noun (in the above examples in the object position) 'negation association with sentence stress' produces a reading in which the existence of the supposed (in the previous sentence) referent for the noun is denied.

b) with the sentence stress on the negation (or on the verb to which negation is structurally attached), which is the 'new' information, the sentence has a normal non-contrastive meaning in which the whole proposition is negated.

c) all other stress placement (including emphatic stress on the verb) yields contrastive reading.

d) since negative sentences are not able to establish reference,[5] the coreferentiality relations in them are the same as in their opening sentences.

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[5] We could say then that formally, negative sentences of the type discussed here (non-generic) cannot serve as opening sentences. There may, of course, be negative sentences used at the beginning of a text (novel, short story, etc.), e.g. *Jan nie przyszedł* (John not came), but the presupposition here is that John was expected to come.

ACTIVE AND PASSIVE SENTENCES IN ENGLISH AND POLISH

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0. INTRODUCTION

Both Polish and English distinguish syntactically between active and passive sentences which seem to state the same thing in different ways. The inventory of English passives possible for each active voice sentence is very limited and sometimes is zero, even if the verb is transitive and has overt subject and object. But in Polish, there are several alternative passive sentences for each active sentence which may have passives, and different active sentences have differing sets of passives possible. Thus the situation in the two languages is ripe for a contrastive analysis. Both languages make an active—passive distinction, but Polish has choices and restrictions not present in English.

The aim of this study, then, is deceptively simple: to provide a clear, straight-forward description of active and passive sentences in English and Polish, to show the relationship between the two types of sentence and to explain their differences in an optimally general way. Finally, a detailed comparison of the structures used in both languages is adduced.

This is a deceptively simple aim because no complete description of passive voice in English, which has the simpler system of the two, has ever been given. Nor have the existing description satisfactorily handled the data they considered. Sapir (1921 : 109, fn. 26) pointed out the existence of such a distinction. But there the matter rested. An interesting but incomplete outline of passive types is found in Jespersen 1969. But this treatment is without explicit semantic discussion and sheds no additional light on the topic. The Neo-Bloomfieldian assumption that 'meaning' could be deduced from the 'meanings' of constituent morphemes and their arrangements precluded much work in syntactic arrangement and prevented many significant generalizations.

One of the most important advances made by Chomsky over the Neo-Bloomfieldians (but one which the generative semanticists seem about to discard) is his assertion that one can profitably study syntax on its own merits rather than simply as an adjunct to either morphology or semantics, and that it can give valuable insights to the latter (Chomsky **1957 : 93** et passim). I do not feel (and the description below shows this) that the generation of sentences can be satisfactorily accounted for by either a Chomsky 1957 or Chomsky 1965 model; however, his genuine insights cannot be ignored.

Chomsky 1965 failed to provide a specific reformulation of the passive transform (for which cf. Hasegawa 1968; R. Lakoff 1971; or Chu 1973). But his by now well-known 1957 version is reproduced in (1). Now this transformation recognizes the facts that there is a

(1) $NP_1 - Aux - V - NP_2 \rightarrow NP_2 - Aux + be + en - V - by + NP_1$

regular and predictable syntactic distinction between active and passive sentences and that the active sentence is the unmarked member of the pair. But nothing in (1) prevents the derivation of (3) from (2),

(2) Many men read few books.

(3) Few books are read by many men.

and they are clearly not identical. Presumably, the later insistence by Chomsky and others (cf. below) that transformations do not change meaning could somehow be used as a negative filter. That is to say, if (3) differs from (2) in meaning, then it cannot be derived from (2) via a transformation. However, it seems to me unlikely that this can be formulated consistently within any of the present model. Moreover, it would deny the fact that (2) and (3) are related syntactically just as Sapir's two farmer-ducklings sentences are, and in the way the original passive transformation predicts.

But in any case, Chomsky's 1957 treatment fails to handle this problem. Nor does it handle the problem of the 'meaning' of passive sentences. I have polled native speakers of English and of several Slavic languages (including Russian, Ukrainian, Polish, and Bulgarian) about active-passive sentence pairs in their native languages. In all cases, a question on whether the two meant the same got an ambivalent response: both sentences say the same thing, but each says it differently. Aside from comments on contextual distribution of the two types, there were several who suggested that sentences like (*the farmer killed the duckling*) describes a certain situation as a discourse on the farmer. Conversely, (*the duckling was killed by the farmer*) describes the very same situation but as a discourse on the duckling. Chomsky's original description of passive therefore fails to account for native speaker intuitions in the matter. Moreover Gleason (1961 : 234 - 35) points out a significant body of data which is related to the active-passive distinction but which is not included in Chomsky (1957). Thus Chomsky's description is doubly unsatisfactory.

But Chomsky (1957) assumes a glow of lucidity and accuracy as one reads later transformational-generative attempts at resolving the problems Chomsky left behind. Robin Lakoff (1971) summarizes these treatments of passive voice. Rather than go into details, I will simply outline the attempts. Katz and Postal (1964), Chomsky (1965) and Burt (1971) describe passive as an adverb of manner while claiming that transformations are all obligatory and do not change meaning. Hasegawa (1968) rejects this and incorporates passive into three complementizing transformations. Kac (1969) shows that the Katz-Postal-Chomsky proposals contain internal conditions leading to a reductio ad absurdam in the structure of the model and offers a solution with an approach to derivation via uniformly optional transformations.

Though each of these reformulations was meant as a redescription aiming to account for data missed in Chomsky (1957) (and Lees 1960), all of them have one serious drawback. Not one of them shows that there is some basic way in which active-passive sentence pairs communicate the same thing, though with a particular difference. Those who advocate the adverb-of-manner approach need the mark present in the base, which simply pushes the question of the relation between active and passive one level deeper while leaving it not only unsolved but now unfaced. Moreover, the base or deep structure must now generate the marked variant rather than the unmarked. Thus the advantages of the passive transformation are obviated.

Splitting the passive transformation into parts and incorporating them into three complementizing transformations (Hasegawa 1968) seems to imply that the active-passive pairs are related only fortuitously, that passivization is not a unified phenomenon. This might be structurally justifiable (as opposed to being a justifiable treatment within the framework of the model), but I have seen no such justification. Moreover, the unity of the active-passive relation is both intuitively satisfying and necessary to explain why people do automatically identify (3) as the passive of (2) unless they consider it carefully. Again native speaker intuitions are denied. Finally, all transformations are not uniformly optional (Kac 1969). Some never occur unless a transformation on which they are dependent has occurred. And these dependent transformations may be either optional or obligatory (cf. Ringen 1972 and Koutsoudas 1972).

I did not myself realize the extent of this problem. I considered the argument(s) to be a house dispute within transformational-generative theory which did not involve me. But this is wrong. Errors should not be left unattacked except by the members of the 'in' group. Moreover, there has been a treatment of passive which is satisfactory as far as it goes: Halliday (1967 - 68). But this seems to have slipped by unnoticed, at least by the transformationalists.

Halliday adopted the Prague school concept of marked versus unmarked theme (initial syntactic element) as the syntactic realization of the distinction between operative and receptive clauses. In short, operative clauses have action directed from agent to goal with the agent realized as clause subject; receptive clauses are similar, except that the goal is realized in clause subject position. The semantic structure of the two types is identical except for the choice of expression, which varies as stated. But this requires formal description and justification, which is given below. Further discussion is deferred until that point.

Now the description of the active-passive relation is one which is confined to the content side of language, a portion of linguistic structure about which we are all fairly hazy. So much work has been done on phonology that most of us feel fairly secure as to what its purposes are and what it looks like, even though there are broad, even fundamental areas of disagreement. A general outline of my views on what should be handled on the content side of language is given in figure 1.

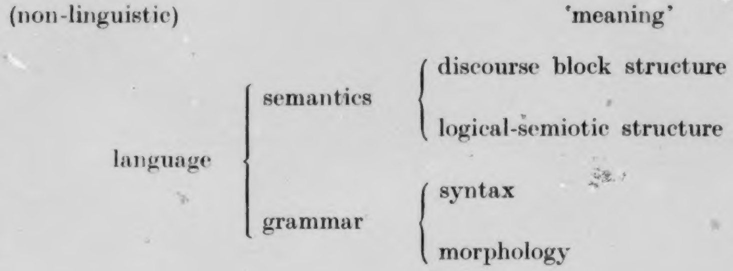

Figure 1: The content side of language

'Meaning' is a cover term for what is communicated, for the 'source' of messages encoded into sound and the 'location' or deduced relevance' of messages decoded from sound. My concept of 'meaning' is herein defined with deliberate looseness. It is intended to be compatible with general semantics, capable of incorporating both Fleming's view of ethnosemantics (1973) and Lamb's (1973) cognitive structure. Though it is probably highly structured, as Lamb 1973 suggests, it is here considered outside of language and is thus beyond the scope of this study. It is necessary to remark, however, that 'meaning' is one (but probably not the only) source of lexical items. But these lexical items are not bipartite representations of phonological and semantic features. Rather they are logical units at this level (cf. Bennett 1973 : 278 - 80). Moreover, 'meaning' is not directly representable in a unique fashion. If it were, we would not need language to communicate it in the general case. Language is a round-about way of communicating, not 'at best' but inevitably; it is that which interrelates sound and meaning.

Discourse block structure specifies the organization of sentences into paragraphs (or sets of paragraphs) by providing temporal or logical order to arguments and narrations. Within the paragraph it separates initial and perhaps concluding sentences from the rest. Perhaps this part of language can impose 'style' or 'genre' restrictions. For example, discourse block structure may be the part of language which imposed the sonnet groupings on Pushkin's *Evgenij Onegin* or the blank verse with concluding couplet format on Shakespear's plays. But this is a most hazy area in which very little work has been done. (For especially good examples of discourse block analysis cf. Halliday (1967 - 68) and Taber 1966).

Logical-semiotic structure is also a part of linguistic semantics, but is concerned with the semantic structure of single clauses or sentences. The cumbersome name is derived from its dual functions. The logical functions include the specification of relations of content-bearing semantic elements to each other and the hierarchical dominance expressed in terms of predications, membership in 'natural' sets, equivalence, etc. The semiotic functions are non-logical signalling devices. They may be linguistically determined as in, for example, the agent-patient relationship; or they may be the result of non-linguistic choices, as for marked theme or focus, question versus declaration, negation, etc. In addition, the semiotic functions are shown in relation to the logical functions. These relations effectively restrict the realizations of logical-semiotic structures in syntax. Some idioms must also be described at this level, but nothing is said of them here (cf. Makkai 1972).

Now the syntax is concerned with generalizations about linear word order, e.g., that a clause normally exhibits subject-verb-complement order, about the fact that subject and complement position are normally filled by noun phrases, etc. Other idioms are also realized on this level.

The morphology states prefix-root-desinence relationships and provides the conditioning environment for the realizations of, for example, the genitive case in Polish, which depend solely on number (singular or plural) and the morphological stem class of the inflectional category.

All the above discussion has centered on four levels of language separately in what might be called tactic comments. That is to say, the discussion has been concerned with how things on a given level are related to each other. The description of passive voice given below requires two levels, logical — semiotic[1] and syntactic. If the two tactic descriptions are necessary, they are worthless without some way of relating them. In stratificational theory, the different logical levels of language are related via realizational relations[2]. Transformations take an input and rewrite it as a different output on the same logical level. The input symbols and output symbols are all drawn from the same set; hence there is no difference in logical level. But realizational relations relate basic units of two separate levels, in this case sememic and syntactic or lexemic. Lexeme, sememe, and realizational relations all exist at the same time, but on different logical levels.

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[1] A less cumbersome name should be chosen. I must reject all transformational-generative proposals as being clearly model-oriented. Lamb's suggestion of 'sememic' based on 'sememe', a term with a respected heritage going back to Noreen, is the best I have yet heard.

The relationship of a particular sememe to a particular lexeme may be one-to-one, as for the realization of the agent or patient marking in figure 7 below; the relationship may be one-to-many, as in the realization of the interrogative sememe as a set of *WH* lexemes; many-to-one, as in the neutralization of orientation and path as *to* in certain environments; or, most typically, many-to-many, as in the realization of time as tense or of sememic role as syntactic case marking.

All this sounds complex, and it is, if looked at from a distance, all at once. But then, in terms of stimulus and response only, language is hopelessly complex. However, the description given below shows that a closer view of a restricted portion of the structure is much more straightforward, possibly even fulfilling the demand of mathematical logic for local triviality. But in spite of the pains the active-passive relation has given researchers, it is only a miniscule portion of the content side of linguistic structure.

I. THE PASSIVE VOICE IN ENGLISH

The data concerning passive voice which are accounted for below are summarized in sentences (4) through (18).

(4) John drove the car.
(5) The car was driven by John.
(6) The car was driven hard (agent unspecified).
(7) Every (some) man loves Aphrodite.
(8) Aphrodite is loved by every (some) man.
(9) Jesus loves every (some) man.
(10) Every (some) man is loved by Jesus.
(11) Every man loves every woman.
(12) Every woman is loved by every man.
(13) Some man loves some woman.
(14) Some woman is loved by some man.

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[2] Other types of inter-stratal relations include Chomskyan or Harrisian transformations (q. v.) and Šaumjan's 'transformational field' (cf. Šaumjan and Sobolova 1963). For reasons which are beyond the scope of this study, I find both alternatives unsatisfactory.

(15) Some man loves every woman.
(16) Every woman is loved by some man.
(17) Every man loves some woman.
(18) Some woman is loved by every man.

By the description given below, the passive sentences in (4) through (14) are shown to be related to the corresponding active sentences. However, the relationship between (15) and (16), (17) and (18) is not just the active–passive relation, and these are not described.

Consider first the active voice sentence (4). It contains an act (drive) relating an agent (John) and a patient (car). The terminology 'patient' in place of 'goal' was suggested by David C. Bennett. It avoids some of the semantic pitfalls inherent in the use of the term 'goal'. Moreover, the Latin parallels (loosely: *agent* 'effecting' and *patient* 'undergoing') are particularly appealing. Now the basic semantic elements or sememes can be written in symbolic logic to represent the semantic relations. The 'proposition' thus communicated is represented D (jc). This predication is part of the sememic structure of both (4) and (5).

The formalism used to write this predication is irrelevant. It could alternatively be written [j D c] or, if we adopted other purely notational conventions, as D(cj), [c D j], (cj)D, etc. In other words, symbolic logic does nothing to support the contention of a particular linear order in the semantic structure, contrary to what was implied in McCawley (1968). The important logical consideration is that there are three sememes which are all present in the predication simultaneously. Logically, therefore, their tactic relationship is conjunctive (AND). Nor does language provide evidence for the preference of one linear order over any other, since this single logical predication must underly both linear orders, as found in (4) and (5). A first approximation of the sememic structure, including tactic relations but not specifying hierarchic dominance, is given in (19).

(19) Predication/(drive)·(John)·(car)

Next the semiotic functions must be specified. *Drive* is one of those actions which relate an agent (*John*) to a patient (*car*), as mentioned above. The semotactic relations must therefore identify which role is to be attached to which participant. This additional specification is given in (20).

(20) Predication/(drive)·(John·*Ag*)·(car·*Pa*)

The semiotic functives *Ag* and *Pa* are underlined to show that they are semotactically determined elements. That is, they have themselves no relation to meaning, but are redundant signals of semological structure, supplied (or inserted) by the semotactics. They are without 'meaning' except in the implicit linguistic sense. They have no real-world referents, that is, they refer to nothing in the real world, only to certain points in the semotactics.

It is now necessary to specify the corresponding syntactic structures. If there is any generalization to be made about clause structure in English, it is that subjective-verb-complement order is followed in the unmarked case (i.e. no questions or other marked syntactic environments). This statement is contained in (21).

(21) Clause/Subject Verb [Complement ·*obj*]

The raised dot symbolizes simultaneous occurrence; the space symbolizes sequential occurrence. Both are AND relations: the former is simple, the latter includes temporal precedence. The brackets indicate optional occurrence, that is, a clause of this sort may occur with or without a complement. Complement position determines an occurrence of the objective case marking for English, which is overtly realized only with pronouns. The objective case marking is a determined lexotactic element, analogous to the agent and patient markings in the semotactics, but on the syntactic level.

Both subject and complement are related to noun phrases at a lower tactic level. This relationship is stated in (22).

(22) subject, complement/NP

Lower level tactic relations are stated in (23) and (24).

(23) NP/John, car,...

(24) Verb/drive,...

It is clear from a comparison of (20) with (23) and (24) that, for the purposes of this simplified example, sememes *John*, *car*, and *drive* are realized in direct, one-to-one relations as the lexemes *John*, *car*, and *drive*. The one further thing which must be specified is the realizations of the roles *Ag* and *Pa*. These have no realization in sound; they are realized as taxons of arrangement. In the unmarked case, which is now under consideration, *Ag* connects to subject position in the clause and *Pa* to complement position.

An integrated logic diagram for the semotactic, lexotactic, and realizational relations is given in figure 2.

Consider the diagram. The triangle represents the AND relation between two or more lines. Thus, reading from the top of the semotactic diagram on the left, the three sememes *drive*, *John* and *car* are related by the AND node to the predication, that is all three are present at once. No relative hierarchy is given, as none has been justified. Suffice it to say that this situation is just temporary. But the nature of the relation is not. Note that *drive*, *John*, and *car* all have lines leading to the left, toward 'meaning'. This means that they are content sememes having nonlinguistic meaning. They represent real-world referents. The diamond nodes leading to *Ag* and *Pa* realize no content. This is expressed by the fact that they have no lines leading to the left, toward 'meaning'. Instead, they are simply markers of some semotactic relation, as remarked above. The line at the top of the diagram connects to positions higher in the semotactics; exactly where is unspecified.

In figure 2, the realizational relations between semotactics and lexotactics are all one-to-one, as is shown. The lexotactics shows AND relation at the top. It relates the clause to three constituent parts and, eventually, to the three lexemes at the bottom of the diagram. But the spacing between the lines on

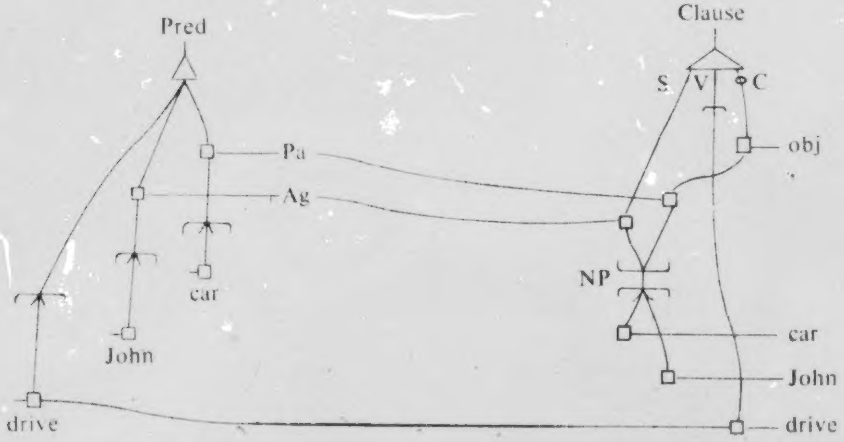

Figure 2

the plural (in this case the bottom) side of the node indicates linear left-to-right ordering, with the realization of *Ag* in first (subject) position, *Pa* in third (complement), and *drive* in between in verb position. The circle around the complement line indicates optionality, that is that the clause relationship is satisfactorily fulfilled whether or not there is anything in complement position. In addition, *John* and *car*, which were in semotactic sets, are both in the NP set in the lexotactics. Just as *Ag* and *Pa* are determined semotactic elements without relationship to the left, toward meaning, *obj* is a determined lexotactic element. But if there is nothing in complement position, the lexotactics does not supply the occurrence of *obj*.

If this were the only type of sentence possible, there would be no need for a two-strata description with two tactic patterns and a realization pattern connecting them. But passive sentences must also be considered.

According to my interpretation of Halliday's description, the difference between active and passive on the semotactic level is minimal. The syntactic differences are extensive, including the realization of the patient in subject position, the passive 'voice' verb lexemes, the realization of the agent in complement position as part of a prepositional phrase which results from the appearance of the preposition *by*. But if the passive 'voice' verb lexemes are ignored, the minimal distinction between the active and the passive clauses can be isolated. The clause only allows one item in subject position. If that item is the patient, then the agent is realized in complement position. The objective case marking is still supplied by the complement position in the clause, and the preposition *by* can be supplied by the lexotactics, too. Thus, to describe passives, we need only be concerned with what is realized in subject position.

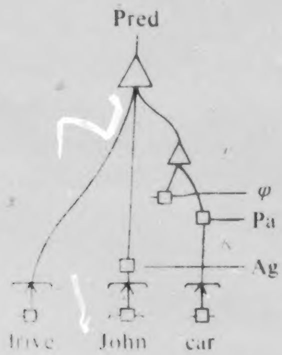

Figure 3

Now it is clear that putting something in initial position of the clause, which is subject position in English, actually emphasizes its prominence. In another, admittedly impressionistic sense, the subject of a clause is what the clause is telling about. The active sentence, as described in figure 2, is the unmarked variant and realizes the simple semotactic relations indicated. In the active sentence, the agent is in initial position of the clause and bears the unmarked focus of the predicative discourse. This implies that the semotactic relations involved in passive sentences contain some additional semantic element or sememe which, though it does not cause a shuffling of the semotactic relations between the set of sememes, represents the decision to communicate them and their relations in a different way. Paralleling Lockwood (1972:143 et seq.), the semotactic mark is labeled φ, signifying semantic focus. It represents the non-linguistic decision to place discourse focus on the patient, realizing it in subject position of the clause. It could be called the 'meaning' of passive. The sememic relations are represented algebraically in (25) and graphically in figure 3.

(25) predication/(drive)·(John·*Ag*)·((car·*Pa*)·φ)

Now it should be emphasized that the use of the φ as a label is simply a mnemonic device. The actual label is unimportant structurally. It merely refers to the relationship in the semotactics which expresses the decision to focus on the patient, as described above.

The lexotactic specification of clause structure is still as in (21). But the lower tactic relations are radically different.

(26) subject · φ/Pa
(27) complement/*by* Ag
(28) Pa, Ag/NP

The graphic description is given in figure 4.

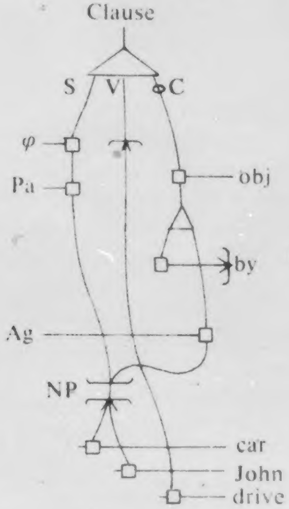

Figure 4

There are several comments which must be made about the description in figure 4. Remember that the 'reversal' in order between agent and patient was taken as the main feature of passive clauses, as argued above. But this is only a verbal first approximation. In fact, the only syntactic alternation provided in figure 4 is given in (26): the realization of patient in subject position. Everything else that occurs is a derivative of this. Since stratificational theory presupposes a network of relationships, the realization of patient in subject position is sufficient to trigger a series of subordinate realizations. Specifically, the agent is not allowed in subject position and must occur in complement position. The occurrence of the preposition *by* in complement position is thus a determined lexotactic element supplied when the agent is in complement position. It neutralizes with the locative *by* in *by* (i.e. next to) *the house*.

This treatment of *by* obviously works for the present limited example, but it should be justified more generally. First, it claims that the passive *by* has no independent meaning. This certainly satisfies native speaker intuition, which would never interpret *by a post* as the passive *by* out of context, but would interpret it as locative or directional. The same goes for other prepositional phrases with *by*. Second, an examination of derived nominals, e.g. *the driving of the car by John* vs. *John's driving of the car*, gives an additional parallel. But topicalized sentences show the *by* when the agent is not in clause complement position: *It's by John that the car was driven.* Now this could be used as an argument for extrinsic ordering of passive and clefting, with little possibility of a counter-argument based on Koutsoudas' reasoning, if both transforms are optional. But this is not a necessary conclusion. The dependency structure of stratificational theory predicts the alternation. It is simply the above verbal formulation which is at fault: the *by* is a determined lexotactic feature of the realization of agent when it has been squeezed out of subject position, i.e. when it has been forced out by the marked realization of something else in subject position. The realizations of the so-called dative passives, which exhibit a strict parallel, support this explanation.

Now such a description would be absurdly ad hoc in a transformational—generative description; but this is not a transformational description. The difference here lies in the fact that the stratificational model makes the surface structure (lexotactic relations) explicit and can refer to it directly. The transformational models in use all have implicit surface structure only. That is to say, 'surface' structure is the set of righthand sides of all possibly final transformations. Thus surface structure constraints in general and constraints like the above, which seem to have to look forward or back for their conditioning environment, seem particularly ad hoc. However, in stratificational theory, the above explanation is not a constraint. It is a verbal summary of the effect of a relational network description of the lexotactic side of passive clauses. In this way each realizational relation affects only a minimal part of the tactic structure directly. All other effects are derivative.

Finally, the difference in the realization of the verb is left unspecified for two reasons. Primarily, the verb alternation is ignored because it is irrelevant to the realizations of noun complement order within the clause (cf. the dative passives, which exhibit the same verb alternations). Moreover, the mode of specification of these realizations is dependent on the description of the verb tense system as a whole, a complex and interesting problem in itself, but a problem which has never been solved to my satisfaction.

It is now necessary to integrate the descriptions of active and passive. The two semotactic descriptions, (20) and (25), are easily combined by making the tactic occurrence of φ optional. This is represented algebraically in (29) and graphically in figure 5.

(29) predication/(drive)·(John·*Ag*)·((car·*Pa*)·[φ])

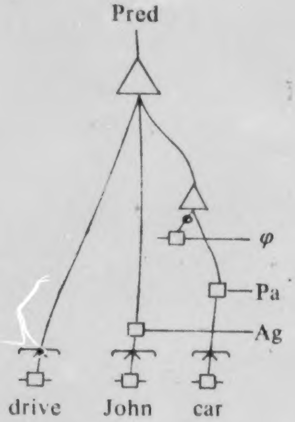

Figure 5

The realizational relations between the semotactics and lexotactics are all one-to-one, as outlined above, but the relations of the agent and patient to the clause in the lexotactics require considerable modification. That is, both need to be related to two tactic positions. Each can potentially occur in subject and complement position. But the occurrence of agent in subject position must be the unmarked choice. Conversely, patient must only occur in subject position if the marked focus (φ) is present. In other words, marked focus must effect the choice of patient in subject position. Similarly, both agent and patient must be permitted in complement position. Here no marking is necessary. Whichever did not occur in subject position is then accommodated in complement position. The tactic relations are given in (30) through (33).

(30) clause/subject verb [complement·*obj*]
(31) subject/($\varphi \supset$ Pa)+Ag
(32) complement/Pa, (*by* Ag)
(33) Pa, Ag/NP

Note that (30) is identical to (21). It is only in the relations of subject (31) and complement (32) that a difference is manifest. (31) states that subject position will realize the patient if it is in the marked environment (φ) and will realize agent otherwise. (32) simply allows patient or agent to occur in that position and supplies the determined occurrence of *by* for the agent. An integrated graphic description of the lexotactics, showing the conditioning environment (the effect on the lexotactics of the semotactic occurrence of marked focus with the patient), is given in figure 6.

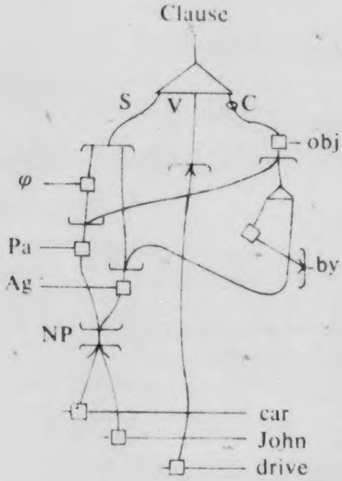

Figure 6

Figure 6 shows two possible realizations of the clause. In first position is the subject. If φ occurred in the semotactics, the patient is realized in subject position, and the lexotactics first produce *the car*. In second position is the verb: *was driven*. The agent, having been squeezed out of subject position, is realized in complement position, preceded by the preposition *by*, as *by John*. Conversely, if there is no occurrence of marked focus in the semotactics, patient cannot be realized in subject position. But agent can be, and the lexotactics produces *John* in first position in the clause. The verb, now simply realized as *drove*, is in second position. The patient, which is the only sememe remaining without a lexemic realization, is put in the complement or third position in the clause. Thus we get *John drove the car*.

This is an example of the way a semotactic structure without linear order can have differing but in each case unique linear orderings imposed on its output by the lexotactics. Such a situation is clearly logically simpler than the ordered deep and surface structures which Chomsky (1965:127) concluded are necessary in default of any acceptable argument of the contrary. With scarcely a question about the appropriateness of this decision, deep structures with strict linear order have been in use by transformationalists ever since. Numerous articles have been written to justify the universality of this or that linear order (cf. Ross (1967) and McCawley (1970); but try McCawley (1971) for a surprising insight).

Figure 7 shows figures 5 and 6 connected by realizational relations.

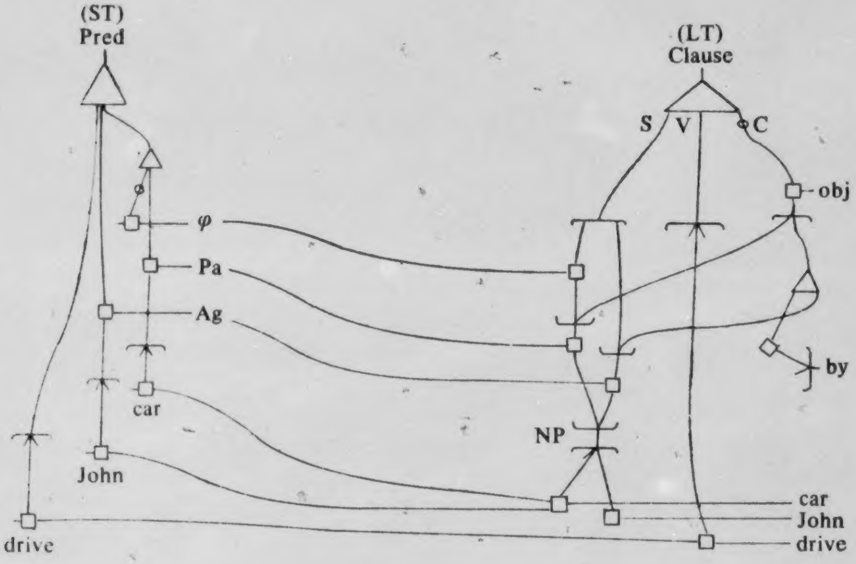

Figure 7

Figure 7 shows explicitly that if and only if the decision has been made to emphasize or mark the patient for focus in the semotactics, then it will occur in subject position of the clause in the lexotactics. Under these circumstances, agent is squeezed out of clause subject position, realized in complement position, and supplied with determined occurrences of *by* and the objective case marking, as described above. If there is no occurrence of marked φ in the semotactics, the subject position in lexotactics will realize the (unmarked) agent, and patient is realized in complement position.

This is the basic explanation of the active-passive relation. It predicts the most common active-passive realizations. A great deal remains to be done besides the specification of the verb realization, especially in terms of integrating the realizations of the other semotactic roles (recipient, range, beneficiary, etc.) into the complement position of the clause. This represents a fascinating project with an end result which, according to preliminary results, will prove to be surprisingly straightforward. In fact, the 'normal' clause complement structure will shed light on the realizations of the active-passive relations. However, a full description of the structure of the clause complement in English is beyond the scope of this study.

Consider instead the materials included in sentences (6) through (18). The lexotactic portion of figure 7 (cf. LT) already accounts for (6), the passive voice with unspecified agent (no syntactic complement). It also accounts for sentences of the type *John is driving*. Even though the verb *drive* normally takes a complement, I would not want to call this an elliptical sentence or a sentence with a deleted object. The evidence for this can be outlined rapidly. First, the present progessive tense is rare in single clause sentences. At least two native speakers of English have told me that a sentence like *John is driving* is only marginally grammatical. Note, however, that such judgements should not be accepted blindly. Failure to conceive of a plausible context often leads to faulty judgements concerning grammaticality. I find the sentence fully grammatical though relatively uncommon, as remarked above. Normally a progressive tense occurs in a complex sentence with at least two clauses, and the other clause has a predictable (to a certain degree) tense. At the very least there are extensive restrictions on the time-relationships thus expressed, and hence, on the tenses. If one clause has the past progressive, for example, the other generally has the simple past. But the present progressive in independent clauses almost never occurs outside of Mickey Spillane. However, it is perfectly grammatical, as markedness theory predicts! Moreover, in the environment of the question, *What is John doing?*, a reply with other than the present progressive would be unusual. The problem lies with a theory that fails to look beyond a single sentence. Similarly, discourse context also supplies the information that makes the statement of a complement redundant and unnecessary, even though it can always be specified. Thus the complement in sentences like (6) is understood from context only, rather than having been deleted from that particular clause. Further discussion on the nature of the 'missing' complement is included below.

But the semotactic structures of figure 7 do not permit agent-[illegible] or patient-act predications to occur alone. They must therefore be modified to account for these additional data.

The modification can be accomplished in two logically differing ways. The line leading to the agent set and the line leading to the patient set may be made optional, or the hierarchic ordering relating the act-agent-patient may be rearranged to allow entry to the act-patient construction while bypassing the agent line. The former solution is by far the simpler. But is makes a false claim. It implies that the semotactic relations in figure 7 would be satisfied with a specification of the act only. This may be a desirable effect in itself, though it would need independent justification. However, it would in turn require further modification of the lexotactics. Thus, though it is simpler in terms of the semotactics, it may not be simpler in terms of overall considerations. This is a consequence of the stratificational demand for an integrated description.

Consider instead the idea of specifying the hierarchic dominance in the semotactics with the concomitant possibility of entry into the act-patient or act-agent relation independently of any specification of the other role. This accounts for the semotactic relations without requiring any change in the lexotactic relations. The two possible hierarchic arrangements relevant to this approach are given in figure 8.

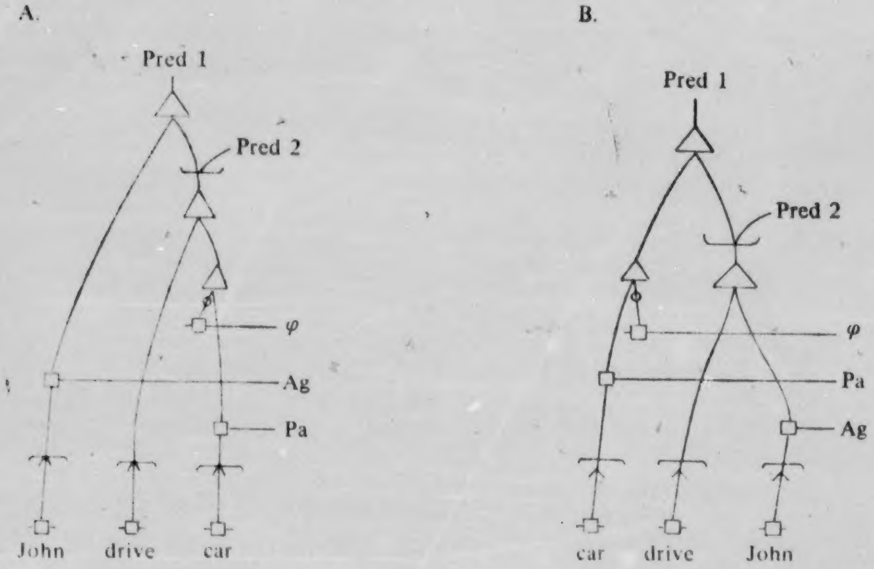

Figure 8

Figure 8A describes the predication with hierarchic dominance of agent over patient; figure 8B gives the hierarchic dominance of patient over agent. Now it might seem desirable to choose one over the other. But no such choice is being made here, because the evidence seems to support the need for both such structures in the emotactics. First, there are sentences like *John drives* and *John is driving*, which are explained and predicted by 8B, but not 8A. It could be argued that *John is driving* has either a deleted or an understood object. As remarked above, I would prefer the description with an understood object, since it is simpler and agrees with the discourse contexts in which such a sentence occurs. Typically, the patient or object is perfectly well known. The new information injected into the discussion is the identity of the driver.

'Understood' rather than 'deleted' object requires 8B, since no patient was ever present in the sememic structure of that particular sentence. Conversely, discourse context for *John drives* requires no object, i.e. neither deleted nor understood from context. *John drives* simply identifies one of John's abilities, and the object to which this ability applies is irrelevant. Of course' contexts could be constructed in which an object might be understood. But even in these cases, the facts support the non-occurrence of the patient (object) in the semotactic predication, rather than its inclusion and subsequent obligatory deletion. Omission is at worst simpler than inclusion and deletion.

Conversely, there are sentences like *the car drives well*. Here there is a patient but not an agent. As with *John drives*, I would argue that the missing element was never there in the semotactics. *The car drives well*, no matter who might be driving it. Again, it is a characteristic of this car that is being described, and the sentence is as true when the car is at rest as when it is in motion. It might also be claimed that in this sentence, *drives* is an alternate realization of *moves* or *travels*. But that would not affect the analysis of *car* as patient. Finally, these sentences are parallel to sentences like *wood burns* and *the forest is burning*, which have no agent at all. Sentences of this type are restricted in occurrence. They might be said to constitute an 'ergative' type, since they are clearly non-passive clauses with the patient in subject position. However, this topic cannot be pursued here.

But figure 8A predicts that there should be a distinction between act-patient sentences with and without marked focus on the patient. Patient is

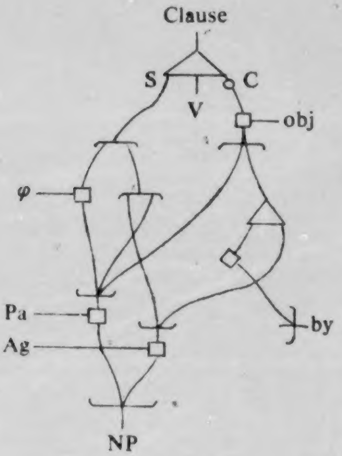

Figure 9

realized in subject position in *the car drives well* because a clause must have a subject, but the complement is optional. Thus the syntactic structures are modified to suit the circumstances. This modification of the lexotactics is included in figure 9. The combination of figures 8A and 9 now accounts for the active-passive pairs in (4) through (6), for *John drives*, *wood burns*, and *the wood was burned*. This last sentence differs from *wood burns* by having marked focus on the patient (*wood*). The ordering between agent and patient in subject position in figure 9 predicts that patient is realized in subject position only if it is marked for focus in the semotactics, as in (5) and (6), or if there is no semotactic occurrence of agent. If agent is present, it will be realized in subject position and patient will occur in complement position, as with *John burned the wood*.

The cogency of the dual description involving hierarchic dominance becomes clearer yet if quantified sentences are considered. Of course, natural language defines set types in addition to the two (universal and existential or non-empty) sets defined by mathematical logic. For example, in the correct environments, *all*, *no*, *any*, *each*, and *every* operate as universal quantifiers. But for the passive voice, it seems that the generalizations made with the two mathematical set types suffice.

If only one of the roles is quantified, as in (7) and (8), which have a quantified agent, all the materials considered above on the active-passive relation apply directly. The same is true if only the patient is quantified, as in (9) and (10), or if both agent and patient are quantified by the same quantifier, as in (11) through (14). Figures 8A and 8B are easily modified to account for this by adding quantifiers to the lines that define the role relations. The modification of figure 8A is effected in figure 10.

Now figures 10A and 10B together account for the sememic structure of sentences (7) through (14). The provision for the optional occurrence of the quantifier accounts for sentences like (4) through (6), in which neither role is quantified; sentences (7) through (10), with only one role quantified; and sentences (11) through (14), with both roles quantified by the same quantifier.

But figures 10A and 10B must be combined in some way. The most general combination would let either role be quantified by either quantifier. However, such a description would predict that any combination of quantifiers will work the same way. But this is not the case. In (7) through (14), as remarked above, the active-passive relations are unchanged. The meaning of each member of each pair is equivalent. Now given (15), the meaning of (16) may be derived; but the reverse is not true. This differs from the logical relations of (4) and (5), (11) and (12), and (13) and (14). These latter pairs are related by logical proofs of complication, i.e., each implies the other. But the relation (15) to (16) is one of inclusion: the 'meaning' of (15) includes the 'meaning' of (16). Similarly, the 'meaning' of (18) includes the 'meaning' of (17). Strictly speaking, therefore, such a description cannot be permitted because of the false claims it would make. (16) does not imply (15) and (17) does not imply (18). Blocking these claims is easily achieved by keeping the quantifiers separate, as in figure 10. Other solutions are also possible. But in addition to the problem of deciding between these solutions and justifying the decision, one problem remains. (15), (16), (17), and (18) are all valid sentences. They are just not part of the active-passive relation in any simple fashion. Thus, the approach to the solution will involve both figures 8A and 8B (18) and (15) are realizations of 8B and 8A respectively, with the existential quantifier (*some*) dominating the universal quantifier (*every*), and with the appropriate statement of focus. But because of its length, an integrated description is beyond the scope of this study. It must be remarked, however, that people do intuitively pair up (15) and (16), (17) and (18) as active-passive correspondences, and this must be accounted for. It is possible that the syntactic correspondences expressed in the lexotactic portion of figure 7 will suffice to explain why they would be paired. They would be decodable as alternates up through the syntax (lextactics). This would permit people to make a generalization which seems plausible but turns out to be false.

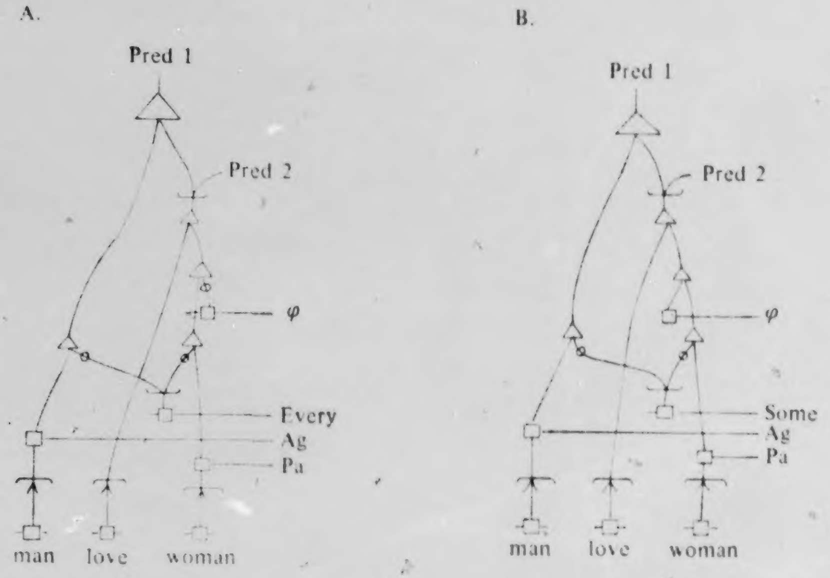

Figure 10

It is clear, therefore, that the question of quantification is much more complex than it seemed at first, even without any consideration of the natural quantifiers. Chomsky's original solution of the active-passive relation, though clearly insufficient, seems to be at least parallel to the relationships necessary for part of the description.

But it cannot explain the actual restrictions placed on the active-passive relation by the quantifiers. In fact, it seems unlikely that any redescription in terms of transformations on a base or deep structure can possibly succeed. Moreover, natural quantifiers represent a very much expanded set. *Each*, *every*, *all*, *no*, and under certain circumstances *any* all operate as natural universal quantifiers, as remarked above. Quantification touches the problem of active-passive sentences just as it touches other types of sentences. Ultimately it must be attacked and solved by linguists operating as linguists, not as symbolic logicians (cf. McCawley 1971). A start in this direction has been made by Fitch (in press), who is a logician. His approach is a logician's, and is at times linguistically naive, but it is an excellent beginning. We linguists are responsible for improving the linguistic sophistication of further research in this direction.

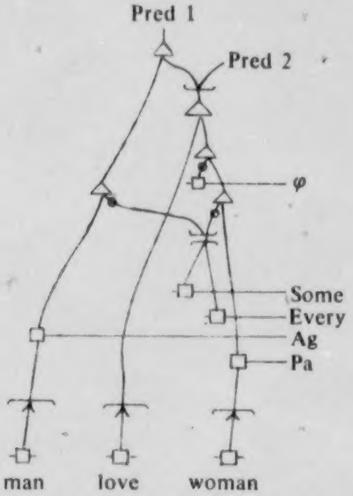

Figure 11

Again, the surface of the active-passive relation has merely been scratched. Nothing has been said about passives formed on the recipient or with an instrument instead of an agent. I cannot overemphasize that all these factors must be investigated and accounted for in a full description, one which includes a description of clause complement structure. (Rosenbaum 1967 is premised on inappropriate assumption and Karttunnen 1972 is aimed at an entirely different object.) Given all the above, the question of the 'got' passive should then be describable in a straightforward fashion (cf. Chu 1973). So in spite of the fact that a fresh approach has provided insights into the active-passive relations in agent-patient sentences, the bulk of the work still remains to be done.

But in any case, the basic explanation of the active-passive relation in English is clear, and we may turn to an examination of the active-passive relation in Polish.

III. THE ACTIVE-PASSIVE RELATION IN POLISH

Given the minimal portion of active-passive structure considered on English and the major portions of structure which remain undescribed, only a minimal portion of the active-passive structure in Polish can be considered. Moreover, none of the materials considered herein take statistical occurrence into account. A close study would show that the morphological passive in Polsh is much less frequent than its English counterpart. This whole area is beyond the scope of this study (cf. Tokarski (1951) and Brajerski (1972) for more extended discussions). But it is possible to remark that the relatively freer word order of Polish can be held to account for at least some of the statistical discrepancy. Rather than accepting a purely 'stylistic' explanation of relatively free word order in Polish, I suspect that word order still has grammatical functions. Szober (1967:230) agrees. Thematizing the direct object (simply putting it in sentence-initial position while not changing its clause function) would serve to draw attention to it in much the same way as the focus realization of the passive clause. This increases the set of possibilities for marking a part of the verb complement for information focus (cf. Halliday 1967 - 68). This effectively decreases the functional load placed on the passive, lowering the probability of its occurrence. For an illuminating discussion of variant word order cf. Szwedek (1973a).

But again, these considerations are off the topic chosen. A series of broader generalizations which are much more quantitative can be made on the basis of a fundamental data set. As for English, the data set includes only agent-act-patient realizations. The realizations of other roles are not considered. For example, (34) and (35) constitute an active-passive pair involving the realizations of the patient

(34) Granat zabił żołnierza.
'A grenade killed the soldier'.
(35) Żołnierz został zabity granatem.
'The soldier was killed by a grenade'.

(*żolnierz*) and the instrument (*granat*). This represents a fascinating set of active-passive data, in English as well as in Polish. For example, I distinguish in the translation of (35) between *by a grenade* and *with a grenade*. The latter to me indicates a deliberate but unspecified agent, the former indicates no identifiable agent. But clause realizations of instrument are beyond the scope of this study and are thus ignored.

A considerably more important question is raised by the use of *zostal* in (35). Polish distinguishes between a *być* passive, as in (36), and a *zostać* passive, as in (37). The temptation, as is indicated in

(36) Pokój był pomalowany w zeszłym roku.
'The room was painted last year'.

(37) Pokój został pomalowany w zeszłym roku.
'The room got painted last year'.

the English sentences, is to translate *być* as a *be* passive and *zostać* as a *get* passive. But the parallel is neither complete nor accurate. First, the distinction between the *be* passive and the *get* passive in English is neither consistent nor necessary, shifting in different environments. It is especially sensitive to negation and contrastive sentence stress. For example, with modal stress and the appropriate intonation, (38) implies that the window is not broken.

(38) The window didn't get broken by Ed.

(39) The window wasn't broken by Ed.

Conversely, (39) implies that the window is broken. That is, negation in (38) affects the dynamic nature of the act, negating *get*; but negation in (39) denies the identification of *Ed* as the agent of breakage, and does not affect the act itself at all.

Returning to the meaning of (36) and (37) gives us a consistent but different picture. It is complicated by the use of aspect in Polish. *Pomalowany* is in the perfective aspect, which has been identified elsewhere as a marking for dynamicity of the act, i.e. it communicates a 'change of state' (cf. Forsyth 1972 for an encyclopedic discussion). This means that *Jan pomalowal pokój* 'John painted the room' indicates a change from an unpainted to a painted state. Unless otherwise modified in context, the new state (here *painted*) is assumed to continue in force. The past passive participle *pomalowany* also implies a shift from an unpainted state to a painted state. Now *zostal* and *byl* both have a passivizing function. But *zostal*, which is itself perfective, merely reinforces the change of state meaning by a redundant communication of dynamicity. Dynamicity is still expressed in (37) by *pomalowany*: the room changed from an unpainted to a painted state. But *byl* has a 'remote' or 'disjoint in time from the present moment' meaning (cf. Mleczak for Polish and Isačenko on the meaning of *byt'* in Russian: I have been fortunate to have extended consultation with both these men). Thus *byl* imparts an additional meaning to (36). The dynamicity indicates a change of state. But the 'remote' or 'disjoint' meaning of *byl* indicates that the 'painted' state is no longer in effect. The room already needs painting again.

One consequence of the above description is that the perfective *zostać* would be ungrammatical in combination with the imperfective past passive participle, but that *być* would be acceptable. This is borne out by (40) and 41).

(40) Pokój był malowany w zeszłym roku.
'The room was being painted last year'.

(41) Pokój został malowany w zeszłym roku.
'?'

As it happens, certain verbs produce, by virtue of their meanings alone, a new state which is permanent. Among these is *zabić* 'kill'. Any difference between (35) and (42) cannot parallel the difference

(42) Żołnierz był zabity granatem.

between (36) and (37) in all environments. Since the meaning of *byl* is implicitly obviated in (42), (35) should turn out to be the preferred variant, and so it is.

However, in the description given below, I deliberately avoid data wherein *być* and *zostać* would modify the meaning of the passive, and simply translate all examples as if they were simple, unmarked *'be'* passives in English.

The preliminary set of data for Polish is given in sentences (43) through (47).

(43) Jan zamordował dwóch naszych ludzi.
'John murdered our two people'.

(44) Dwaj nasi ludzie zostali zamordowani przez Jana.
'Our two people were murdered by John'.

(45) Dwaj nasi ludzie zostali zamordowani.
'Our two people were murdered'.

(46) Dwóch naszych ludzi zostało zamordowanych.
'Our two people were murdered.'

(47) Dwóch naszych ludzi zostało zamordowanych przez Jana.
'Our two people were murdered by John'.

Note that no quantified sentences have been included, as they were for English (cf. sentences (7) through (18)). Since no integrated description was produced for English quantification, no contrastive analysis of the sort desired could be made, even assuming some integrated description of quantified passives in Polish were completed.

Now English has no parallel to the distinction between (45) and (46). It has been suggested to me that both focus on *our two people*. But (45) treats them selectively, as individuals, and (46) treats them collectively, as some group of people to whom something has happened. Though the focus is there, the act seems to be emphasized. This is an impression rather than an attempt at explanation, but it is definitely an intuitive judgement that (46) evokes some kind of double emphasis. I return to this point below. In any case, there is a distinction between these sentences which has never been explained and which must be attacked.

As with the English description, the generalizations made on the passive set included in (44) through (47) are restricted by the scope of the study. But again, lifting these restrictions would require extensive elaboration of the clause structure of simple sentences in Polish. Enlightening as this would be, I am in no position to accomplish this feat at the present. Therefore, the restrictions stand.

Before beginning a formal analysis, I must remark that discussion with several Slavs concerning their intuitions about the active-passive relation got results remarkably similar to those obtained from native speakers of English.[3] Specifically, (43) and (44) inform the listener about the same event from different points of view. One informant even commented that (43) says something about *Jan* and (*44*) about *dwaj nasi ludzie*.

Moreover, Schenker has told me (personal communication) that for him, the essence of 'passive' is that it treats the patient as obligatory and the agent as optional (cf. (45) and (46)). This is a perfectively valid structural observation. However, as is shown below, it applies differently to the semantics and the syntax. Schenker's comment expresses in undifferentiated fashion the effect of one lexotactic generalization and another, independently-motivated semotactic generalization.

Now the assumption here is that the semotactic structures relevant to (44) differ only minimally from those of (43), as for the corresponding English sentence types. But this minimal semotactic difference is realized in the lexotactics as differences in word order, clause function of different noun phrases (with shift in subject-verb agreement), and the appearance of the verb auxiliary in (44), along with the passive suffix. Considering the parallel about the difference in 'meaning' between (43) and (44) as expressed by Polish and English speakers, it is also assumed that the passive in Polish is the realization of the marking of the patient for focus in the semotactics.

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[3] My most profitable and extended discussions came with a diversified group, both professionally, geographically, and linguistically: George and Nadia Sheffer (University of Florida: Russian), Bohdan and Olena Saciuk (University of Florida: Ukrainian), and Zenon Nagler (University of Florida: Polish). I have also been fortunate in finding three native Poles who are linguists: Waldemar Gutwiński (York University), Alexander Schenker (Yale University), and Jerzy Mleczak (University of Florida and Adam Mickiewicz University, Poznań). I was able to pin down Gutwiński and Mleczak for extended sessions, but my consultation with Schenker had to be conducted by mail. I have freely culled insights from all these people and offer them below, out of context and in my own synthesis. No concurrence with my conclusions is implied.

An algebraic statement of the semotactic relations relevant to (43) and(44), including role assignment and optionally marked focus, is given in (48), with the corresponding graphic description in figure 12.

(48) (zamordować). (Jan. *Ag*.). (((dwaj nasi ludzie). *Pa*). [φ])

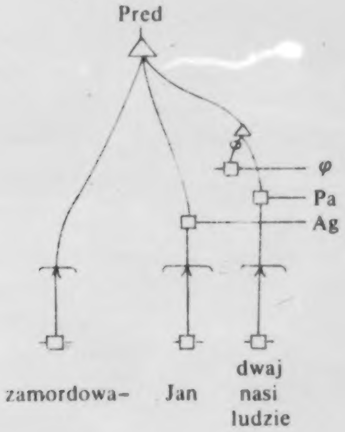

Figure 12

Figure 12 is markedly similar in its relational organization to figure 3. But like figure 3, it is insufficient. The relation of (45) to (44) and of (46) to (47) shows that the passive sentences do not require any agent, as Schenker's remarks imply. Conversely, passive sentences without patient, e.g. (49), are, if not meaningless,

(49) Zamordowano przez Jana.

at least not independently meaningful. In fact, without some greater context, *przez Jana* in (49) has a primary reading of 'because of John' instead of 'by John', at least to some native speakers of Polish. That is, (49) identifies a causer rather than an agent. Perhaps in some discourse block contexts they would be appropriate, but they do not stand alone. Similar comments hold for passive sentences involving instrument instead of patient, as in (50) (cf. (34) and (35)). Thus

(50) Zabito granatem.

it is clear that figure 12 must be modified to allow access to the act-patient relation in the semotactics without involving the agent. This modification is included in figure 13.

Figure 13 is arbitrarily paralleled to figure 8A for the sake of simplicity. Given the restrictions imposed on the data included in this study, figure 13 will suffice as a preliminary description of the semotactic relations relevant to both active and passive sentences involving the agent-patient relation.

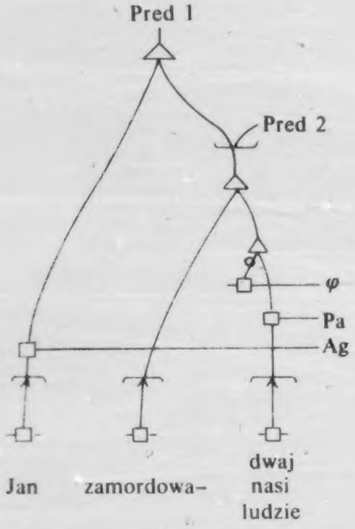

Figure 13

In fact, it predicts some other relations, as outlined below. But in any case, the preliminary stage of the description involving the semotactics as it had been limited is complete. The next part of the description concerns the syntax.

As the first part of the syntactic description, let us consider the lexotactic relations. (51), which is fomulated on the basis of

(51) Clause/subject verb [complement]

unmarked word order, applies to both (43) and (44). However, below this level the relations diverge. The lexotactic relations of (43) are considered first, of (44) later. (43) realizes the agent in the subject position, the act in the verb position, and the patient as the direct object in the complement portion of the clause. The direct object in clause complement position receives a lexotactically determined occurrence of the accusative case marking, but the clause subject receives *no* case marking. This implies that nominative is the unmarked case, i.e. it is the case supplied by the morphology if no morpheme realizing a marked case (accusative, genitive, locative, dative, or instrumental) is present (cf. Sullivan (1969: 145 - 50) and Lockwood (1972: 115 - 26); cf. also

Schenker (1964:13) and Jakobson (1958))[4]. The rest of the clause tactics relevant to (43) are described in (52) through (56).

(52) verb/zamordował, ...
(53) subject/agent
(54) complement/patient·*acc*
(55) agent, patient/NP
(56) NP/Jan, dwaj nasi ludzie, ...

Note that the question of verb agreement is avoided in (52), and the thorny problem of the number phrase is left out of (56), just as it was ignored in the semotactics. The former is a straightforward, if not trivial problem, but the latter involves at least the sememic, lexemic, and morphemic strata of language. Other than this, the clause tactics of (43) is complete. The integrated graphic description is given in figure 14.

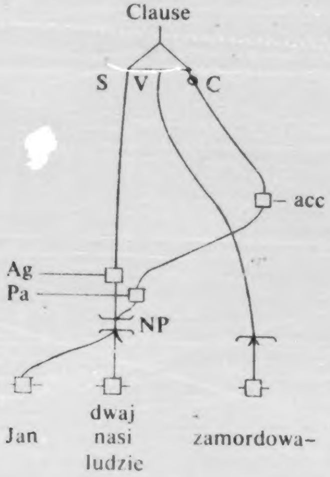

Figure 14

The clause relations of (44), insofar as they differ from those of (43), are given in (57) and (58). As in (55), patient and agent

(57) subject/$\varphi \supset$ patient
(58) complement/*przez* (agent·*acc*)

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[4] The vocative is not considered part of the system of syntactically marked cases (cf. Schenker 1964:18, fn. 6).

are related at a lower tactic level to NP. But (57) states that the patient is realized in subject position with no case marking provided. Again, this implies that the morphology supplies the nominative. Concurrently, (58) states that when the agent is realized in complement position, the lexotactics supplies a determined occurrence of the preposition *przez* and provides a determined occurrence of the accusative case marking. Consistent with prior practice, the realization of the verb is ignored. The graphic description of the clause tactics of (44) is given in figure 15.

Remember that no realization of the verb is considered and that the morphological realization of the case lexemes is also ignored. Given that, figure 15 describes the clause tactics of both (44) and (45). The latter simply has nothing in the complement position of the clause as a realization of a semotactic construction without specification of agent.

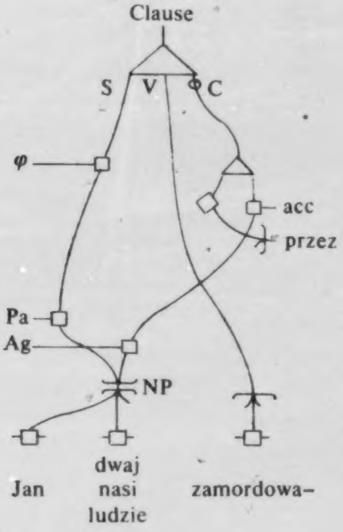

Figure 15

The two clause structures must now be integrated. At the highest tactic level, (51) applies to both, as mentioned above. Again, the shifts occur in what may be realized in subject and complement position. This is specified in (59) and (60).

(59) subject/($\varphi \supset$patient)+agent

(60) complement/(patient·*acc*), (*przez* (agent·*acc*))

The conditioning environment which effects the choice of patient in subject position is the lexotactic realization of marked theme in the semotactics. This, in turn, effects the realization of the agent as the object of *przez* in complement position. The graphic description is given in figure 16.

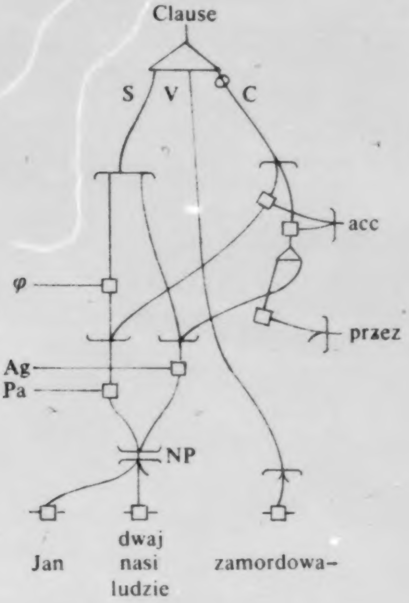

Figure 16

Now it might seem on casual inspection that a mechanical simplification can be made in the right-hand side of (60). Both alternatives require a determined occurrence of the accusative lexeme. Thus the *acc* can be supplied once for both choices. The modification is provided in (61).

(61) complement/(patient, (*przez* agent) ·*acc*

However, though some such simplification is necessary, it must be understood that many other case lexemes must be marked in the verb complement part of the clause in a complete description. In other words, the lexeme *acc* is not characteristic of the clause complement position in Polish as the lexeme *obj* is in English. With this understanding, the simplification represented in (61) is included in figure 17.

Figure 17 integrates the semotactic description of figure 13 with the lexotactics of figure 16 via a set of realizational relations. This fully accounts for (43), (44), and (45). The basic sememes of (43) and (44) are identical, except that (44) requires the additional decision to mark the patient for clause focus

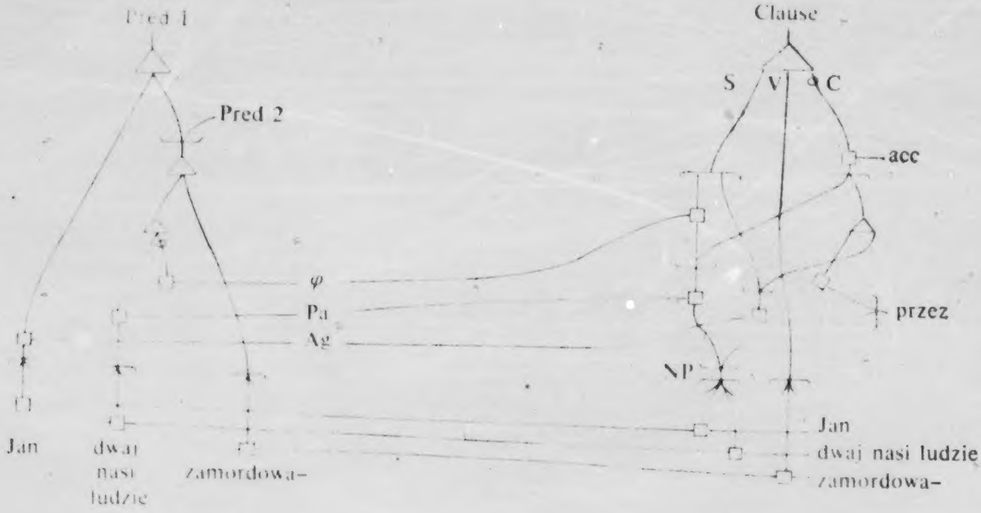

Figure 17

(represented by φ). The sememic structure of (45) simply requires entry to the diagram at *Pred 2*, bypassing the agent. (The fact that Polish has a whole spectrum of subjectless sentences is being ignored. Eventually, of course, these must be integrated into a unified description with the passives because of the overlap implicit in (45), (46), and (47)). When it occurs, *Jan* is marked as the agent, *dwaj nasi ludzie* as the patient. Both agent and patient can potentially be realized in either subject or object position of the clause. The 'naturalness condition' of stratificational linguistics states that an item which can occur in any of several tactic positions on a particular stratum must occur in the first available position which allows fulfillment of all obligatory tactic requirements.[5] Thus, if marked focus is present in the semotactics, the patient is realized in subject position. This results from the fact that it takes precedence over the agent in the environment of marked focus. Only one clause element can be realized in subject position. Thus the agent is 'squeezed out' of subject position and must be realized in object position. But when the agent is not in subject position, it is realized as the object of the preposition *przez*. The occurrence of the preposition and the accusative case marking are supplied for the agent at the same time by virtue of its occurrence in the complement. Conversely, if there is no occurrence of marked theme in the semotactics, the patient cannot be realized in complement position with the determined occurrence of the accusative case lexeme. If, in a case with the semotactic occurrence of marked focus, the semotactic construction is reached via *Pred 2*, i.e. no agent is present, the clause is realized without complement.

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[5] This is actually a consequence of the gestalt nature of the description rather than a more or less arbitrary prior condition or constraint on transformations not derived from logical primes.

Nothing, however, has been said about (46) and (47). Given (47), of course, figure 17 predicts the possibility of (46), which simply lacks an agent. This again goes back to Schenker's comment about the optionality of the agent in passive clauses. But this leaves two syntactic problems undiscussed. The accusative case marking for *dwóch naszych ludzi* and the agreement of the predicate must be explained. Moreover, nothing has been said about the semantic or sememic differences between (45) and (46) or between (44) and (47). These must also be explained.

Time and space limitations restrict this part of the description, too. But an outline of the description is easily given. The key to it lies in the 'relatively freer' word order of Polish, which must be more than randomly stylistic in function. Pending more quantitative studies including statistical analysis, ascribe the free word order partly to the fact that Polish permits the thematization of any part of the clause. This implies the realization in initial position of the sentence without change in clause function. This requires the description of the sentence to be different from the description of the clause given in (51). One change is effected in (62), wherein θ indicates marked theme.

(62) sentence/[θ>Pa] clause

Now combining this with (51) predicts a realized order of *PaAg Verb* for sentences with marked theme, with the patient still marked for accusative as the direct object of the clause. If the patient were marked for both thematization and focus in the semotactics, an interesting circumstance would arise. The focus marking would produce a passive verb and would realize the agent in complement position as *przez Jana*. But the patient could not be realized as a nominative in subject (focus) position, as it would already have been realized in thematic position. This gives (47), and figure 17, as remarked above, predicts the possibility of (46). Of course, the ramifications need to be checked with a broad cross-section of native-speaker intuition, and the additional structure must be integrated with the material described in figure 1. But the semotactic occurrence of both theme and focus seem to parallel the impression of double emphasis remarked above. Moreover, in addition to word order and case marking, this description predicts the verb agreement.

With no subject in the clause, the morphology supplies the unmarked desinences to the verb, in this instance neuter singular.

If this proposed description is accurate, the semantic and grammatical relations involved are relatively straightforward. However, the mechanical integration is not included because too much of clause complement structure is still undescribed and would have to be added if the description were to be fully meaninful.

However, the description presently provided suffices for a contrastive analysis.

IV. A PRELIMINARY CONTRAST

The contrastive analysis is necessarily preliminary because the two descriptions, as represented in figures 6 and 17, are not complete. However, several general statements can be made. Some of these concern the structure of the active-passive relation in the two languages; others are derivable at least partly from the nature of the stratificational model in use. These latter are clearly labelled (sm), or they are explained by footnote.

Parallels:

pl) Both languages require a semotactic and a lexotactic portion connected by realizational relations (sm).

p2) The semotactic relations of both languages are syntagmatic (i.e. and) relations and are explicitly ordered in hierarchical but not linear fashion.

p3) The semotactics of both languages accept predications which include an act and a patient, as well as those which include act, patient, and agent.

p4) The semotactics of both languages assign the roles of agent and patient to the sememes which fill the appropriate slots.[6]

p5) The semotactics of both languages accept an optional assignment of marked focus (φ) to the patient as the 'meaning' of passive.

p6) The clause lexotactics of both languages realize the subject, verb, and complement in linear order (sm).

p7) In both languages, the unmarked subject is the agent, the marked is the patient.

p8) In both languages, the patient occurs as subject only as a realization of marked focus (cf. fn 7 below).

p9) In both languages, whether agent or patient is realized in subject position, the other is realized in complement position.

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[6] Here the terminology is derived from the stratificational model, but the situation described is due to the structural facts, i.e. it is empirically justifiable by virtue of the relative syntactic and morphological complexity of the active and passive, frequency of occurrence, native speaker response, etc. Researchers using Fillmore's *Case grammar* have come to similar structural conclusions.

p10) The lexotactics of both languages assigns a marked case lexeme to whatever is realized in complement position.

p11) Whatever is realized in complement position is optional in both languages.

p12) The lexotactics of each language assigns a preposition to the agent if it is realized in complement position.

Contrasts.

c1) The complement case marking is objective for English, accusative for Polish.[7]

c2) The preposition supplied for agent in passive sentences is *by* in English and *przez* in Polish.

c3) Passives have patient as the obligatorily nominative subject in English, but it may remain as accusative direct object in Polish, i.e., a Polish clause need not have an overt subject.

c4) English semotactics can have marked focus or marked theme, but not both. Polish semotactics permits either, or a combination. (The contrast in lexotactic realization is given in (c3)).

More parallels and many more contrasts would emerge from a fuller analysis. For example, in Polish, passives without agent related to actives with instrument in the subject supply a simple occurrence of the instrumental case lexeme for the instrument in the complement, as in (34) and (35). But in English, the instrument may get an occurrence of the preposition *by* with the objective case marking, just as the agent does.

However, in the limited example chosen herein, the sememic and lexemic parallels and contrasts have been exhausted.

V. CONCLUSIONS

The preponderance of parallels and their number in this highly restricted example gives us an insight into the reason why so many linguists keep searching for a level of language which is universal. But the contrasts between the two descriptions show that the attempts to find a universal 'deep structure' which is syntactic in nature are mistaken. Conversely, the size of this example is insufficient to suggest that the sememic levels of English and Polish are identical or nearly identical models of some universal 'base'.

In any case, however, the parallels far outnumber the contrasts. Further, three contrasts concern the lexemic stratum. Of these, (c1) and (c2) aim at morphological realization. Now the extensive morphological differences between Polish and English are well documented. Indeed, it would be surprising if any contrast involved no differences on the morphological stratum. But the morphemic distinctions between (c1) and (c2) are merely derivative. They are simply different ways of redundantly marking the word order difference which is, in turn, the realization of the semotactic occurrence of marked focus on the patient.

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[7] Contrasts are restricted to sememic and lexemic strata. Morphemic contrasts are legion and even crucial, but beyond the scope of this study. Implicit in (cl) are the facts of the morphological case systems of Polish and English.

(c3) and (c4) are the syntactic and semantic sides of the same phenomenon. They have morphological consequences, to be sure, but their main significance is that they reflect a sememic difference between English and Polish. Specifically and with few exceptions, clause position alone is sufficient in English to determine clause function. That is, clause-initial position is subject position. (c3) and (62) show that this is not true for Polish. A description integrating the data of (46) and (47) would show this to be a substantive difference. Thus the sememic level of language is also shown to be non-universal and language-specific in nature, however many parallels can be found.

Nor is this sememic contrast isolated or unique. The parallels and contrasts between the English *'be'* and *'get'* passives vis-a-vis the Polish *być* and *zostać* passives were only mentioned. But from the outline sketched, it should be clear that the distinction in Polish involves the question of aspect (on both its semantic and morphological sides) very explicitly, whereas the involvement of aspect in the English system seems much more implicit. This is not surprising, considering the extensive use of aspect in the Slavic languages, but it is surely not a logical necessity and, therefore, not predictable. Thus it, too, is an independent sememic (deep- or semantic-structure) contrast.

Perhaps linguists ought to lay aside for the present any search for a universal base within language and concentrate on completing and tightening incomplete and loose or even contradictory descriptions of fundamental problems like that of the active-passive relation.

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NOTIONAL PASSIVE IN ENGLISH AND IN POLISH

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Voice as the grammatical category is associated with the relationship between the surface structure subject and the surface structure verb (see Hockett 1959 : 276) and as such, it refers to some semantic and formal distinctions. Passive voice implies that the surface structure subject is undergoing an action. The formal marker of the passive meaning in English is *be* and the auxiliaries commutable with it, together with the past participle of the main verb; and in Polish it is *być, bywać, zostać* together with the past participle of the main verb.

The relationship between the passive and the active sentences is accounted for by Lyons (1969 : 376) in the following way:

"(i) The object of the active sentence becomes the subject of the corresponding passive sentence.

(ii) The verb is active in form in the more basic (active) version, and passive in form in the less basic (passive) version.

(iii) The subject of the active sentence is not necessarily expressed (overtly represented) in the passive version of the same sentence, but if it is expressed, it takes the form of an adjunct marked as agentive by means of case inflection or by the use of a particular preposition."

There is a group of verbs which in certain expressions seem to have passive meaning without the assisting formal marker. They can satisfy the first of Lyons' conditions, but not the second (the verb is active in form) neither the third (no possibility of expressing the agent). The structures which are passive in meaning only and not in form are called "notional passive". Let us have a look at some pairs of a formally active and a formally passive structure, the two of which seem to have nearly the same meaning.

E1 His shirt dried in the sun. E2 His shirt was dried in the sun.
E3 The subject dropped. E4 The subject was dropped.
E5 The train stopped. E6 The train was stopped.

E7 The room filled rapidly.
E8 The room was filled rapidly.

P1 Szmaty suszą się na sznurach.
P2 Szmaty są suszone na sznurach.
P3 Dom buduje się.
P4 Dom jest budowany.
P5 Tutaj stoczyła się bitwa.
P6 Tutaj została stoczona bitwa.

In Polish, the verb in the active form is used together with the reflexive pronoun *się*, which form by some grammarians (see Milewski 1965 : 101; Szober 1953 : 239; Klemensiewicz 1937 : 107) is regarded as characteristic of reflexive voice. Reflexive voice implies that the subject is the performer and the receipient of the action. "Podmiot jest wykonawcą czynności ale zarazem i jej objektem. Taka czynność jest zwrotna i wyraża się w formie opisowej czasownika z zaimkiem *się*" (Benni, Łoś, Nitsch, Rozwadowski 1923 : 348).

Reflexive sentences fall within the scope of the Greek middle voice which was regarded as intermediate between the primary opposition "active" and "passive" and signified that the action or state affected the subject. The term "middle voice" is not, however, used in reference to the verb with the pronoun *się* in Polish, the term "reflexive voice" being preferred as more definite in meaning.

The verb with the reflexive pronoun *się* has multiple functions in Polish and its reference is in no way restricted to the reflexive meaning, e.g., it may denote reciprocal as in *widzieć się z kimś*, passive as in *drzwi otwarły się lekko* or impersonal as in *oddycha się lekko.*

As the passive voice expressed by the verba pronomina in Polish satisfies only the first of Lyons' conditions (see page 1) and fails to satisfy the second and third ones, I shall call it in this paper notional or pseudo-passive.

Various grammarians deal with the problem of notional passive in different ways, e.g., Jespersen (1961:347 - 53) calls this phenomenon acto-passive usage of some verbs and tries to give reasons for the usage. "The double-sideness ... in *dry* and *fill* is caused by the fact that there is no distinction between transitive and intransitive derivatives from adjectives and in verbs like *begin, end, move, roll* by the natural intrinsic meaning of the verbs themselves" (Jespersen 1961 : 350).

Zandvoort (1962 : 200) notes that some transitive verbs may be used intransitively with non-personal subjects, e.g.

Browning's plays won't act
The book sells well

The same problem caused the attention of Polish grammarians. Szober (1953 : 325) and Gaertner (1933 : 192) say that the reflexive forms are often used in the passive sense. According to them, the reflexive form is used to denote the passive voice when we do not name the performer of the action, e.g.

Stoczyła się bitwa.

In the cited example, however, although the performer of the action is not given, one can also use the passive form,

Bitwa została stoczona.

Szóber accounts for this, saying that the passive form is used if we want to point out the results of the action, rather than the action itself.

Benni T., J. Łoś (1923 : 347) say that the passive meaning is rendered in Polish by two forms,

a. *być, bywać, zostać* and the past participle of the main verb.

b. verb with the reflexive pronoun.

They note, besides, that the latter form rarely indicates unambiguously passive voice because of the multifunctional character of the reflexive pronoun.

Examining P1 ... P6 and E1 ... E8 one must ask oneself a question about the distinction between the formal and the notional passive. According to Fillmore (1968), in all the above examples it is the objective that has been subjectivalized. The only difference between E1 and E2, E3 and E4, P1 and P2 etc. is that in E1, E3, E5, E7, P1, P3, P5 the verb does not have the passive form and in E2, E4, E6, E8, P2, P4, P6 it does. Does this mean that there is only difference in form, not in meaning between the notional and the formal passive? There seems to be certain evidence against such an assumption.

E1, E3, E5, E7, P1, P5 convey an idea that the action is proceeding naturally and spontaneously. The idea of the agent seems to be very remote, although one understands that the patient could not perform the action. It is not possible to express the performer of the action by means of the typical "agentive adjunct construction" as in the case of the formal passive, e.g.

The mechanic stopped the train.
The train was stopped by the mechanic.
*The train stopped by the mechanic.

Maszynista zatrzymał pociąg.
Pociąg został zatrzymany przez maszynistę.
*Pociąg zatrzymał się przez maszynistę.

Let's examine some sentences of the type E1 and P1 in order to make some general observations.

E9 The dirt rubs off.
E10 This poem does not rhyme.
E11 This cigar smokes for a good hour.
E12 The book does not translate well.
E13 This shirt dried in the sun.
E14 The stone rolled on.
E15 The war began in Belgium.

E16 The shop closes at six.
E17 Your letter reads well.
E18 This book sells well.
E19 This play acts well.
E20 My hat blew into the river.
E21 This soup tastes nice.
E22 The ham was not digesting very well.
E23 The meat is cooking.
E24 The suit-case does not lock.
E25 Serge wears well.
E26 The rockets are firing off well.
E27 The cows are milking well.

P7 Kamień stoczył się.
P8 Ten brud ściera się.
P9 Ten wiersz nie rymuje się.
P10 Ta książka nie tłumaczy się łatwo.
P11 Wojna zaczęła się w Belgii.
P12 Jego koszula suszy się na słońcu.
P13 Twój list czyta się z przyjemnością.
P14 Rakiety odpalają się dobrze.
P15 Sukno nosi się długo.
P16 Walizka nie zamyka się łatwo.
P17 To cygaro pali się przez dobrą godzinę.
P18 Krowy doją się dobrze.
P19 Sklep zamyka się o ósmej.

We see that the verb very often is used with some descriptive adverb like *well, nice, bad, dobrze, długo*. This adverb has different connotations when used in the notional passive than when it is used in the formal passive. eg.

This book reads well means something like *This book is readable.*

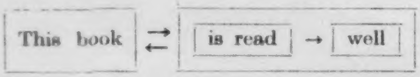
and

This book is read well may be paraphrased *Somebody does the reading well.*

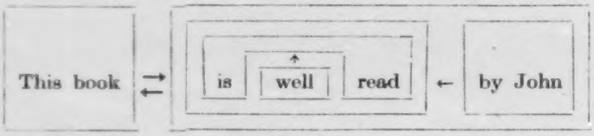
In the notional passive the adverb modifies the verbal, and the whole predicate determines the subject (see Szlifersztejnowa 1968 : 23). This can be represented by means of arrows,

This book ← reads ← well

In the formal passive the determination is more complicated, as the surface structure subject determines and is determined at the same time by the predicate. The adverb *well* modifies the action of the verbal, which in turn is directly associated with the agent, even though the latter may not be overtly present. This may be graphically represented,



and when the agent is specified,



The adverb *well* modifies the verbal, but the whole expression is, in turn, modified by the agent *by John*. In this way, the adverb directly refers to the action of the agent, and only the whole predicate determines and is determined by the subject. It is interesting to note that even in the case the agent has been deleted in the surface structure of the formal passive the adverb still directly modifies the action of the agent and only indirectly the state of the patient. This, in turn, leads to another question — the role of the agent in the notional passive, formal passive and active sentences.

If we group these constructions according to the degree of the specification of the agent, starting from the least definite, we shall receive the following order (I assume that the stress and the intonation are normal):

1. notional passive e.g. The door opened.
   Drzwi otwarły się.
2. formal passive without the agent-adjunct construction
   The door was opened.
   Drzwi zostały otwarte.
3. formal passive with the agent-adjunct construction
   The door was opened by John.
   Drzwi zostały otwarte przez Janka.
4. active John opened the door.
   Janek otworzył drzwi.

After pointing out some of the relationships holding between the formal and the notional passive, we shall now give some tentative solutions concerning the generation of the two. The verbs are classified in the lexicon according to the case environments in which they are accepted.[1] A characteristic feature of modern English is that one case is usually subjectivalized. If a given verb may occur with more than one case it is necessary to determine which case has the priority to become subjectivalized. It seems that the normal choice of a particular case to be subjectivalized may be specfied by a general rule and need not be listed in the lexicon of the verb.

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[1] For this and the following see Traugott (1972 : 36, 82).

Here are some observations which should be taken into consideration when forming such a general rule for English (see Chafe 1971 : 241).

1. In the environment of a passive verb a beneficiary noun or a patient noun becomes the subject of a sentence.

2. In the environment of an active verb an agent or an experiencer noun takes priority in becoming the subject, a beneficiary noun is next in priority and otherwise a patient noun becomes the subject.

In Polish, the subjectivalization is not obligatory. If it occurs, an agent noun is usually chosen for a subject. When the agent is not present, it is usually an experiencer, an instrumental, a beneficiary or a patient that is subjectivalized.

In the environment of a passive verb it is a patient noun that is most likely to be subjectivalized. If the patient is subjectivalized in the environment of an active verb, this verb usually belongs to the state or process category.[2] It should be noted that with most of the process verbs the noun is said to have changed its state or condition and that many of them are actually action-process verbs, e.g.

Michael dried the wood.

which permit the non-occurrence of the agent. They are frequently used with both an agent and a patient noun, and then, according to the general rule, the agent becomes the subject. When the agent is absent, the patient is subjectivalized, the form of the verb remaining active it takes the normal structural position of the agent.

Agent mostly dominates a noun with the feature[+Animate]. Patient is more neutral in this respect and it may dominate any noun. Notional passive sentences have for their subjects the nouns with the feature [−Animate] because otherwise the noun would be interpreted as the agent, e. g.

Mother is cooking the meat.
The meat is cooking.

Cannibals are cooking Robinson Crusoe.
Robinson Crusoe is cooking.

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[2] For tests differentiating between the two see Chafe (1971 : 98).

It seems to me that the fact that the patient takes the structural position of the agent has some semantic implications. We often look upon the patient as having some semantic feature that would either induce the action, or make it easier, more natural or spontaneous, e. g.

The book sells well.
The suit-case opens well.

Not all process verbs, however, generate the surface structure of notional passive. There is some evidence that notional passive sentences are formed only with action-process verbs which permit the non-occurrence of the agent and not with purely process verbs that cannot take an agent, e. g.

The wood dried → can satisfy the first of Lyons' conditions
John died → does not satisfy any of Lyons' conditions

In Polish, notional passive is expressed by means of reflexive verbs. These verbs have many semantic functions and it would be beyond the limits of this paper to discuss them. From the point of view taken here, the true reflexives are action-process verbs in which one noun serves at the same time two functions, that of the agent and that of the patient, e. g.

agent
↑
Janek myje się
↑
patient

When used without the reflexive pronoun, these verbs take usually different nouns for the agent and for the patient, e. g.

agent patient
↓ ↓
Mama myje Małgosię.

Some reflexive verbs may become process verbs connected only with a patient and forming notional passive in Polish, e. g.

Szmaty suszą się.
Drzwi otwarły się.

The patient in notionally passive sentences has the feature [— Animate] because otherwise it acquires another meaning, e. g.

Mama suszy Małgosię.
Małgosia suszy się.

The fact that the reflexive verbs are basically action-process verbs and that without the reflexive pronoun such verbs as *gotować się*, *myć się*, etc.

are connected with both the agent and the patient; the fact that the former takes the position of the subject is not without semantic implications. As in the case of English, the action is looked upon as proceeding naturally and spontaneously and it is often implied that the patient has some semantic feature which helps the action, e. g.

Ta książka czyta się dobrze.
Sukno nosi się długo.

Now, I shall present a tentative analysis of notional passive. For the sake of comparison a sentence in formal passive will also be generated. Most of the Phrase Structure rules have been formulated from the point of view of the case grammar as presented by Fillmore (1968).

A fragment of the base component:

EPS 1 S → M Pr
EPS 2 Pr → VP (C_1, C_2, C_3, C_4 ... C_n) (Man)
EPS 3 VP → V (psv)
EPS 4 Cd → Kd NP
EPS 5 NP → (det) Nom
EPS 6 Nom → N (Num)
EPS 7 M → Tense (Aspect)

where

C_1=Patient=Pn
C_2=Experiencer=Ex
C_3=Agent=A
C_4=Instrument=I
C_5=Source=S
C_6=Goal=G
C_7=Result=R
C_8=Place=Pl
C_9=Time=T
S = Sentence
Pr = Preposition
M = Modality
VP = Verb Phrase
V = Verb
psv = passive
NP = Noun Phrase
Nom = Nominal
N = Noun
Num = Number
Man = Manner

K = Case Marker
E = English
PS = Phrase Structure
C_d = any case from EPS 2 and K_d = the case marker appropriate to it.

PPS 1 S $\rightarrow$ M Pr
PPS 2 Pr $\rightarrow$ VP (C_1, C_2, C_3, C_4 ... C_n) (Man)
PPS 3 VP $\rightarrow$ $V \begin{pmatrix} \text{rfl} \\ \text{psv} \end{pmatrix}$
PPS 4 C_d $\rightarrow$ K_d NP
PPS 5 NP $\rightarrow$ (det) Nom
PPS 6 Nom $\rightarrow$ N Gend Num
PPS 7 M $\rightarrow$ Tense Aspect

where

C_d = any case from PPS 2 and K_d = the case marker appropriate to it.
Gend = Gender
P = Polish
rfl = reflexive

ET 1 M VP K_{Pn} NP X $\Rightarrow$ NP M VP X

condition: $X \neq \Delta$, E

where

T = Transformation

The transformation that generates notional passive is a kind of the subjectivalization transformation. It consists of two operations,

1. the shift of Pn before M,
2. the deletion of the case marker K_{Pn}.

The passive transformation, on the other hand, has the following form:

ET 2 M V_{psv} K_{Pn} NP K_A NP X $\Rightarrow$ NP M be V+en K_A NP X

Sometimes, the object that is the result of an action $\rightarrow$ R can be subjectivalized, as in

E28 Words formed in his head.
E29 How are your plans shaping?
E30 The house is building.
E31 What is doing?

The case grammar accounts for the fact that the patient cannot be subjectivalized with some verbs, e.g.

*This believes well.
*This book likes very much.

while with others it can, e. g.

The door opened.
The meat is cooking.

The case environments for *open* and *cook* are something like:

[__P_n A I] [__P_n A]

and those for ***believe*** and ***like*** something like:

[__P_n **Ex**]

The normal subject as determined by the general rule is agent for ***open*** and ***cook*** and experiencer for ***believe*** and ***like***. ***Open*** permits the deletion of agent and instrumental and ***cook*** the deletion of agent, in which case according to the general rule patient can be subjectivalized. ***Believe*** and ***like*** do not permit the deletion of experiencer and as according to the general rule experiencer has the priority to become a subject, patient cannot be subjectivalized if experiencer is present.

The same refers to Polish:

P20* To wierzy się.
P21* Książka lubi się bardzo. *lubić*, *wierzyć* [__P_n Ex]

P22 Drzwi otwarły się. *otworzyć* [__P_n (A) (I)]
P23 Mięso gotuje się. *gotować* [__P_n (A)]

PT1 M V_{rfl} K_{Pn} NP X ⇒ NP M V się X
condition: $X \neq A$

PT 1 consists of four operations:
1. the shift of Pn before M,
2. the deletion of the case marker K_{Pn},
3. the addition of a new constituent *się*,
4. the deletion of the mark *rfl* under V.

The passive transformation has the following form in Polish:

PT 2 M V_{psv} K_{Pn} NP K_A NP X ⇒ NP M być V+—n— K_A NP X

Sometimes, as in the case of English, the object that originates as the result of an action → R can be subjectivalized, e. g.

P20 Słowa formowały się w jego głowie.

P21 Jak kształtują się twoje plany?
P22 Dom buduje się.
P23 Co się robi?

The transformations ET 1 and PT 1 are similar, with the difference that in Polish the verb takes the reflexive form in case patient or result is subjectivalized and in English the verb has the "normal" active form.

There are, however, such sentences in Polish like:

P24 Ta zupa smakuje dobrze.
P25 To nie wygląda tak źle.
P26 Kapelusz poleciał w kierunku rzeki.

in which patients have been subjectivalized and yet the verbs have not taken the reflexive pronoun *się*. It seems to me that these verbs, in one sense at least, choose the patient as their normal subject. If this assumption proves to be true, it should be stated in the lexicon as the idiosyncratic property of these verbs.

In the following examples the verb has the reflexive form but the subjectivalization did not occur:

P27 Tę sztukę gra się dobrze.
P28 Aparaty radiowe sprzedaje się dobrze.

The verbs *grać*, *sprzedawać* can normally take other arguments besides the patient, among others also the agent or the goal. If there is an agent, it is usually subjectivalized. If, as in P27 and P28, the agent is not mentioned, the verb assumes the reflexive form and the subjectivalization is usually optional. In the above examples we have secondary topicalization by which process the patient is moved to the front position; it does not, however, lose its case marker and determine the number and the gender in the verb, as in the case of subjectivalization. These sentences are not notionally passive as they have no subject, but "neuter active" or "impersonal".

P3, P13, P15, P17 and P19 are ambiguous. The noun at the beginning of the sentence can be interpreted both as the surface structure subject or as the surface structure object.

According to Szlifersztejnowa (1968 : 163), in the last twenty five years there has been observed a process of simplifying sentence structure in Polish by restoring the balance between the defining and the defined constituents. The noun governing the verb becomes governed an shifts from the more complicated function of the subject to that of the more unambiguous object, e.g.

Książka drukuje się→Książkę drukuje się.

This process would probably lead to the complete disappearance of the notional passive expressed by the verb with the reflexive pronoun in Polish. Szlifersztejnowa even says that the reflexive form seems now to be completely superfluous for expressing passive voice.

In English, the number of verbs that permit the subjectivalization not to occur is very small, and if the only argument present in the Preposition is the patient, it is obligatorily subjectivalized. The Polish sentences without surface structure subjects like

Tę książkę czyta się z przyjemnością.

have usually no congruent structure in English.

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SOME ASPECTS OF SUBJECT-VERB CONCORD IN POLISH AND ENGLISH

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The term *concord* or *agreement*, as it is more frequently called, is a grammatical phenomenon operating on the syntactic level of language. It consists in making the subordinate word take a form similar to that of the word to which it is subordinate, in other words, making them agree or be in concord with respect to such features as gender, case, person and number (cf. Lyons 1969:239). Needless to say, in English concord can refer solely to the categories of number and person; consequently its functional load is not so prominent as it is in Polish. The relatively small concord in English (in comparison with other highly inflected languages) follows from its limited possibilities in expressing the idea of gender and case, the last of which have the predominant function in the syntactic relations of Polish.

It seems to be convenient to take Polish constructions as the starting-point and principal basis for our discussion and to juxtapose each Polish example with its English counterpart so as to account not only for the similarities and differences between the two languages in question but to point out the nature and character of Polish subject—verb agreement as well. Moreover, we shall confine our attention to subject—verb concord with respect to number and case only, since gender and person referring mainly to Polish, are at this point of no essential importance.

Therefore, the aim of this paper will be to present evidence in support of the views that;

(a) subject—verb concord in Polish may be accounted for exclusively on the syntactic level,

(b) subject—verb concord in English, on the other hand, has both semantic and syntactic interpretation,

(c) some modifiers and quantifiers in Polish possess the characteristic property of controlling the case of the noun that follows them and consequently the number of the verb governed by the noun.

This paper does not claim to cover in an exhaustive way all the aspects of subject—verb concord but is intended as an introduction to a later, more detailed discussion.

Abbreviations: N — noun, V — verb, NP — noun phrase, VP — verb phrase,
p — plural, s — singular, M — modifier, Q — quantifier.

I. Let us observe, first of all, that both in English and Polish the sentences containing the subject—verb sequence normally demonstrate both syntactic and semantic similarity which may be formulated as follows:

Polish: Ns+Vs, Np+Vp.

English: Ns+Vs, Np+Vp., for example:

Chłopiec czyta. (1)
The boy is reading. (1a)
Chłopcy czytają. (2)
The boys are reading. (2a)
Ta powieść należy do mnie. (3)
This novel belongs to me. (3a)
Te powieści należą do mnie. (4)
These novels belong to me. (4a)

II. The first exception to the concord rule arises in English with collective nouns which possess so called "notional concord" (Quirk1972:360). Such nouns, though grammatically singular, contain plural denotation and are consequently followed by a plural verb. This aspect in English is of purely semantic character. In Polish, however, the rule of notional concord does not apply because the subject, in order to be followed by a plural verb, must be definitely marked for plurality; for example:

Policja szuka złodzieja. (5) Ns+Vs
The police are looking for a thief. (5a) Ns+Vp
Rząd właśnie postanowił rozwiązać problem. (6) Ns+Vs
The government have just decided to solve the problem. (6a) Ns+Vp
Nasz Komitet Planowania rozpatrzył pańską prośbę. (7) Ns+Vs
Our Planning Committee have considered your request. (7a) Ns+Vp

III. The divergency between "notional concord" with its semantic interpretation in English and the syntactically grammatical number in Polish may be moreover confirmed in:

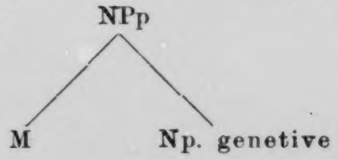
Narody Zjednoczone są pożyteczną organizacją. (8) Np+Vp
The United Nations is a useful organization. (8a) Np+Vs

where the noun phrase *The United Nations in* 8a is understood as singular, that is "an organization", while in 8 the noun phrase *Narody Zjednoczone*, inflected plural, entails a Vp.

IV. There are instances, however, where the Np in Polish is as a rule (in contrast to English) followed by a Vs. Let us consider the following examples:

Studenci uczą się angielskiego. (9)
The students learn English. (9a) cf. 1 - 4a
but,
Wielu studentów uczy się angielskiego. (10) NPp+Vs
Many students learn English. (10a) NPp+Vp
Kilku panów czyta gazetę. (11) NPp+Vs
Some gentlemen read a newspaper. (11a) NPp+Vp
Osiem kobiet skończyło pracę. (12) NPp+Vs
Eight women have finished their work. (12a) NPp+Vp

What should immediately draw our attention is the presence of a modifier/quantifier in each NP which in the syntax of Polish brings about the change (transformation) of case from noun plural nominative to noun plural genetive (cf. Krzeszowski 1974:199). This phenomenon may be named a "modifier—noun concord". Nevertheless, it should be pointed out that the case-sensitive modifiers, to which we may classify some quantifiers (numerals), have to be dealt with in a way similar to grammar-sensitive rules because they make up a finite set of rules that we shall present as follows:

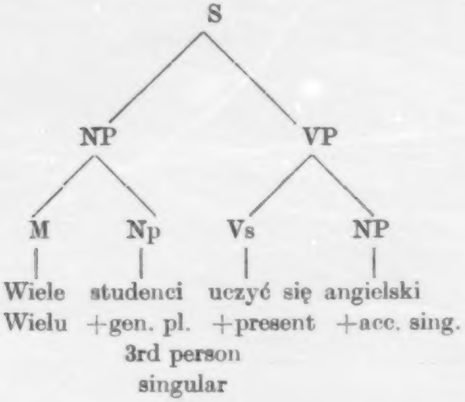


dużo
mało
kilku
kilkunastu
kilkudziesięciu
niewielu
wielu
mnóstwo
większość
reszta
tłum
+any numeral
from 5 on,
in masculine from 2 on.

This distinction, between the modifiers that bring about the change of noun case (cf. Sienicki 1974) and those that do not is necessary, for there are modifiers which require a plural genitive case; therefore, the verb remains in concord with the NP, that is to say, it has a plural nominative marker, for example:

Niektórzy studenci uczą się agielskiego. (13) NPp+Vp
Several students learn English. (13a) NPp+Vp
Pewni panowie czytają gazetę. (14) NPp+Vp
Certain gentlemen read a newspaper. (14a) NPp+Vp

So far we can assume that the main difference between subject-verb concord in Polish and English follows from the use of genitive-sensitive modifiers which affect the head-noun in the NPp and entail a Us. Thus a diagram generating such sentences would be:



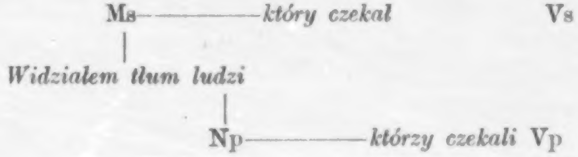
V. As seen on the above diagram the modifier+noun+verb agreement on the surface structure in Polish follows from its subsurface string on applying a "cosmetic" or morphological transformation (cf. Krzeszowski 1974).

VI. It is also worth noting the double relationship of subject—verb concord in Polish. Let us consider:

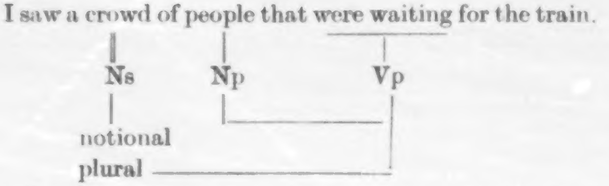
Widziałem tłum ludzi, którzy czekali na pociąg. (15) NPp+Vp
Widziałem tłum ludzi, który czekał na pociąg. (16) NPp+Vs
I saw crowds of people that were waiting for the train. (15a, 16a) NPp+Vp
Widziałem mnóstwo ludzi, którzy czekali na pociąg. (17) NPp+Vp
I saw a great number of people that were waiting... (17a) NPp+Vp

It is an easily observable fact that in 15 the verb agrees with Np, whereas in 16 it agrees with the singular marked modifier. At this point we should distinguish between plural and singular modifiers in both languages, that is to say *tłum* vs. *tłumy*, *crowd* vs. *crowds*. In such cases the vesb in Polish fully respects the concord of number, namely; *...ludzi, którzy czekali, ...tłum, który*

czekal. English syntax, on the other hand, lacks the above mentioned differentiation (15a, 16a). The mutual relationship may be presented as follows:
Polish:



English:



In English the explanation is purely semantic as both *the crowd of people* and *crowd* itself are understood to be notionally plural, cf (5a, 6a, 7a). By contrast, however, Vs has to be used in English in a sentence like:

The crowd has been dispersed. (18)

on which Quirk observes (1972: 361) that the choice between singular and plural verbs "...is based if on anything, on whether the group is being considered as a single individual body or as a collection of individuals (...) on the whole the plural is more popular in speech, whereas in the more inhibitional medium of writing the singular is probably preferred". Such syntactic tolerance supports our view about the semantic aspect of subject — verb concord in English.

Examples (15 - 18) in turn make it possible to notice that the syntactic interpretation of subject — verb agreement in Polish lies in the fact that the verb agrees with both modifier and noun. Thus we have:

Ms+Np gen.+Vp — noun—verb agreement,
Ms+Np gen.+Vs — modifier—verb agreement,
Mp+Np gen.+Vp — modifier—verb agreement.

VII. The relation of NPp gen. to Vs in Polish is also manifested when the verb is *to be* followed by a subject complement, e.g.

Te kobiety są zajęte. (19) NPp+Vp
These women are busy. (19a) NPp+Vp

but,

Większość kobiet była zajęta. (20) NPp gen.+Vs
Most women were busy. (20a) NPp+Vp
Kilku uczniów jest nieobecnych. (21) NPp gen.+Vs
Several pupils are absent. (21a NPp+Vp

Consequently, a similar rule applies to Polish existential sentences where *to be* occupies the initial position;

Jest siedem okien w klasie. (22) Vs+NPp
There are seven windows in the classroom. (22a) Vp+NPp
Niewielu jest takich, którzy znają arabski. (23) Vs+NPp
There are not many that speak Arabic. (23a) Vp+NPp

Curiously enough this rule does not work in Polish when the verb is followed by a modifier expressed by nouns; dziesiątki (the tens), setki (the hundreds), etc. For instance:

Są setki ludzi na placu. (24) Vp+NPp
There are hundreds of people in the square. (24a) Vp+NPp

for we cannot have:

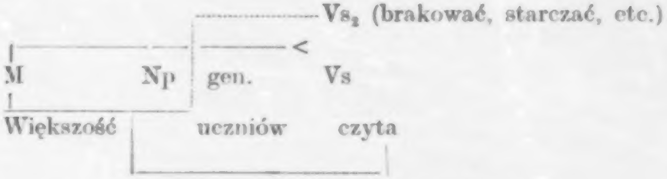
*Jest setki ludzi na placu. (25) Vs+NPp

The explanation is that the modifier *setki* is in contrast to *setka* distinctly marked for plurality, hence the grammatical concord on the syntactic level.

VIII. Finally it remains to be decided whether the occurrence of verb singular in the sequence M+Np gen.+V is due to the modifier or to the verb. In other word, which of the two contains a more prominent functional load. In fact, we face a three-fold correlation. Let us compare:

Większość uczniów czyta. (26) NPp gen.+Vs
Most pupils are reading. (26a) NPp+Vp
Większość czyta, reszta śpi. (27) Mp+Vs
Most are reading, the rest are sleeping. (27a) Mp+Vp
Pupils are missing. (28a) Np+Vp

The problem of the M+N+V sequence becomes more conspicuous and clear if shown on a diagram:



The above graphic representation illustrates the fact that:

1) the sequence M+Np gen. makes up one constituent that must be followed by a verb singular, the occurrence of which is due to the definite kind of modifier (or quantifier) only because;
2) if noun deleted (27) the modifier keeps on its function and requires verb singular to follow.
3) the evidence in support of the crucial function of the modifier may be more-

over confirmed in the fact that Np gen. itself cannot be followed by a verb singular. If it does so however (*Uczniów brakuje...*) the concord is of a verb — object type (*brakować sił, wody, uczniów, etc.*) and should be dealt with in a separate discussion.

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A COMMENTARY ON LOCATIVE IMPERSONAL SENTENCES AND THEIR ALLEGED SYNONYMS

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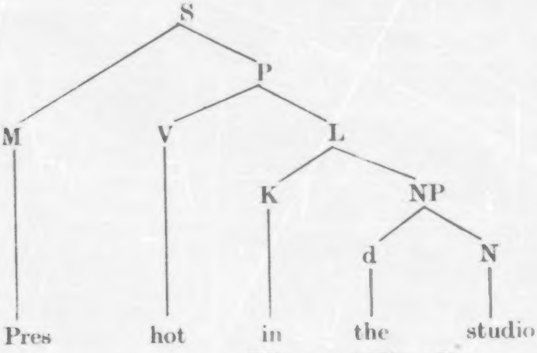
In his case grammar designed to represent "the 'deepest' level of the 'deep structure'" Fillmore (1968:88) places Locative on a par with other deep structure cases of the proposition and defines it as "the case which identifies the location or spatial orientation of the state or action identified by the verb" (1968:25). Further he asserts that *Chicago* and *in Chicago* or *the studio* and *in the studio* are merely different surface structure realizations of one and the same deep structure case, namely Locative, in pairs of sentences concerning 'meteorological conditions', such as:

(1) (a) It is windy in Chicago.
(b) Chicago is windy.
(2) (a) It is hot in the studio.
(b) The studio is hot.

In other words sentences (a) and (b) are considered to be transformationally related paraphrases of each other, both derived from deep structure (3):

It seems, however that this synonymy does not always hold. The present



(Fillmore 1968: 43)

paper is intended as an examination of the relationship between such pairs of sentences. In order to see whether they are indeed synonymous, various examples of impersonal Locative sentences, i.e. the (a) variants, concerning both meteorological and nonmeteorological phenomena will be analysed and compared with their (b) counterparts in the English and Polish language. The analysis will be based on the author's own judgements concerning the grammaticality and acceptability of Polish examples. English examples, on the other hand, have been discussed with British and American informants. It is rather difficult to obtain a lucid and all embracing picture of relationship between the two types of sentences, for subtle shades and differences of meaning have to be dealt with, and several different factors responsible for those differences can be involved simultaneously.

Thus the first impression is that the (a) and (b) types of sentences differ from the point of view of what topic (theme) is chosen in them (of course, this difference is recognized by Fillmore, cf. his notion of topicalization). Consider, for example sentences (4a) and (4b):

(4) (a) It's extremely cold on the Moon during the night, and extremely hot during the day.
(b) The Moon is extremely cold during the night and extremely hot during the day.

Sentence (4b) seems to establish *the Moon* as its topic and then goes on to assert something about it, whereas (4a) is concerned with meteorological conditions, namely the temperature on the Moon rather than the Moon itself. Consider another pair of sentences:

(5) (a) At the back of the bay it was already quite dark.
(b) The back of the bay was already quite dark.

In (5b) one almost anatomically cuts the back of the bay from the rest of the scene, which is due to the fact that *the back of the bay* functions as the topic of this sentence, the new information being that it has already acquired a dark colour. In (5a), on the other hand, we are rather concerned with the amount of light in the air, i.e. meteorological conditions again.

Another point in which sentences (a) differ from sentences (b) is the span of the time they refer to. It can be easily demonstrated that in most cases sentences (a) denote momentary states, whereas sentences (b) tend to denote permanent states. This distinction seems to be much more clear-cut in Polish than in English, and for this reason Polish sentences will be analysed first. Thus, in the following set of examples all denoting momentary states, only sentences of the (a) group are acceptable:

(6) (a) W pokoju Marylki było $\left\{\begin{matrix}\text{zimno}\\ \text{gorąco}\end{matrix}\right\}$, gdy tam wszedłem.
(b) *Pokój Marylki był $\left\{\begin{matrix}\text{zimny}\\ \text{gorący}\end{matrix}\right\}$, gdy tam wszedłem.

(7) (a) W pokoju Marylki często było duszno.
(b) *Pokój Marylki często był duszny.
(8) (a) Wkrótce $\left\{\begin{array}{l}\text{w namiocie}\\ \text{na ganku}\end{array}\right\}$ będzie zbyt ciemno, żeby czytać.
(b) *Wkrótce $\left\{\begin{array}{l}\text{namiot}\\ \text{ganek}\end{array}\right\}$ będzie zbyt ciemny, żeby móc tam czytać.

For the same reason sentences of the (a) group can be freely used to denote a change of state (process), while sentences (b) are much more restricted in this respect, as they tend to associate permanent features with existing objects, cf.:

(9) (a) W pokoju robiło się coraz zimniej.
(b) *Pokój robił się coraz zimniejszy.

but:

(b') Powoli, z biegiem lat pokój Piotra stawał się coraz zimniejszy.
(10) (a) W ciągu dziesięciu minut w pokoju zrobiło się zupełnie $\left\{\begin{array}{l}\text{zimno}\\ \text{ciemno}\end{array}\right\}$.
(b) *W ciągu dziesięciu minut pokój zrobił się zupełnie $\left\{\begin{array}{l}\text{zimny}\\ \text{ciemny}\end{array}\right\}$.
(11) (a) W pokoju ściemniło/ściemniało się powoli.
(b) *Pokój ściemnił/ściemniał się powoli.
(12) (a) W kościele zrobiło się duszno.
(b) *Kościół zrobił się duszny.

In comparison with Polish, the distinction in use between English sentences of the (a) and (b) type, according to whether they are supposed to denote permanent states or momentary states and processes, appears to be much weaker and perhaps more intricate. Several English speakers have been consulted, and although not always unanimously, they find both sentences (a) and (b) acceptable in such instances as:

(13) (a) The moment the Satanist came in, it became cold and dreary in the room.
(b) The moment the Satanist came in, the room became cold and dreary.
(14) (a) It was often hot in my room.
(b) My room was often hot.
(15) (a) It will soon be too hot on the plane.
(b) The plane will soon be too hot.
(16) (a) It will soon be too stuffy in the tent.
(b) The tent will soon be too stuffy.
(17) (a) In a moment it will be too dark in the $\left\{\begin{array}{l}\text{tent}\\ \text{porch}\end{array}\right\}$ to read.
(b) ?In a moment the $\left\{\begin{array}{l}\text{tent}\\ \text{porch}\end{array}\right\}$ will be too dark to read in.

(18) (a) In a moment it will be too $\left\{\begin{array}{l}\text{windy}\\ \text{cold}\end{array}\right\}$ on the porch to stay there.

(b) ?In a moment the porch will be too $\left\{\begin{array}{l}\text{windy}\\ \text{cold}\end{array}\right\}$ to stay on.

Sentences (17 b) and (18 b) were accepted by one person and described as 'stilted', 'Germanic', and the like by others, whereas sentences (a) were said to be 'more normal way of saying'. Further examples are intended to indicate that English sentences of type (b) are not completely free with respect to time denotation and confine themselves to denote permanent rather than momentary states, though perhaps to a smaller extent than they do in Polish. Thus a sentence like:

(19) (b) This lift is very stuffy.

is more likely to have been said by a lift attendant or a person who often uses that lift, than by someone who has just entered it for the first time. Similarly:

(20) (b) Their porch is rather windy.

can only be understood as a general statement combined with an element of evaluation. It should also be noted that sentences (b) containing no explicit time specification are normally taken to be general statements denoting permanent states, and additional time specification such as *now*, *at the moment*, *soon*, *often* is necessary in them if they are to denote momentary states. On the other hand, sentences (a) usually express momentary states or processes, unless otherwise specified, cf.:

(21) (a) Oh, it's always so cold in my room.

equivalent to:

(21) (b) Oh, my room is so cold.

in which the presence of *always* is unnecessary.

It can thus be seen that the difference in time denotation is an important factor able to account for the lack of synonymy between the (a) and (b) versions, both in Polish and English. Examples of (22) support this statement showing how unnatural the (b) version sounds when substituted for (a) in a well specified context (the hero of the story unexpectedly finds two unpleasant visitors waiting for him in his room):

(22) (a) 'Good evening, gentlemen,' said he.
The room was brightly lit (...). They sat in their greatcoats and bowler hats (...).
'What can I do for you, gentlemen?' he asked affably.
'It's warm in here, wouldn't you like to take off your coats and hats?'
(Maugham 1972: 25)

(b) (...) *'This room is warm, wouldn't you like to take off your coats and hats?'*

It remains to be seen whether discrepancies in time denotation are the only factor responsible for the lack of synonymy between sentences (a) and (b). The next set of sentences is meant to illustrate the role of spatial relations obtaining in those sentences. Consider the following examples:

(23) (a) It was slippery *on the floor*.
=(b) *The floor was slippery*.
=Polish: (a) *Na podłodze* było ślisko.
=(b) *Podłoga* była śliska.
(24) (a) It was empty *in the streets*.
=(b) *The streets* were empty.
=Polish: (a) *Na ulicach* było pusto.
=(b) *Ulice* były puste.
(25) (a) It was dark *in the passage*.
=(b) *The passage* was dark.
=Polish: (a) *W przejściu* było ciemno.
=(b) *Przejście było* ciemne.
(26) (a) It was indeed bright, clean and nice *in Jack Bogucki's kitchen*. (Dąbrowska 1957 : 161).
=(b) *Jack Bogucki's kitchen* was indeed bright, clean and nice.
=Polish: (a) *W kuchni u Jacków Boguckich* było rzeczywiście jasno, czysto i miło. (Dąbrowska 1955 : 171).
=(b) *Kuchnia u Jacków Boguckich* była rzeczywiście jasna, czysta i miła.

Similarly:

(27) (a) Już się na *polach* zazieleniło.
=(b) Już się *pola* zazieleniły.
(28) (a) *W studni* było głęboko.
=(b) *Studnia* była głęboka.

But:

(29) (a) It was dirty *in the* $\left\{\begin{matrix}\textit{car}\\ \textit{boat}\end{matrix}\right\}$.
≠(b) $\left\{\begin{matrix}\textit{The car}\\ \textit{The boat}\end{matrix}\right\}$ was dirty.
(30) (a) It was dark *in the* $\left\{\begin{matrix}\textit{car}\\ \textit{tank}\text{/military tank/}\end{matrix}\right\}$.
≠(b) $\left\{\begin{matrix}\textit{The car}\\ \textit{The tank}\end{matrix}\right\}$ was dark.
(31) (a) It was lovely *in the palace*.
≠(b) *The palace* was lovely.

The same lack of synonymy can be observed in Polish:

(29)') (a) *W samochodzie* było brudno.
≠(b) *Samochód* był brudny.

(30′) (a) $\left\{\begin{matrix}\textit{W samochodzie}\\ \textit{W czołgu}\end{matrix}\right\}$ było ciemno.

≠(b) $\left\{\begin{matrix}\textit{Samochód}\\ \textit{czołg}\end{matrix}\right\}$ był ciemny.

(31′) (a) *W pałacyku* było prześlicznie.

≠(b) *Pałacyk* był prześliczny.

On comparing sentences (23 - 28) with (29 - 31) we conlude that the (locative?) subject nouns in sentences (b) must preserve the same dimensions, perspective, distance, and part-whole relationship that can be found in corresponding locative expressions in sentences of the (a) group. In other words: both *on the floor* and *the floor*, *na polach* and *pola* denote a flat surface thus rendering the (a) and (b) variants synonymous in (23) and (27). The (a) and (b) variants are synonymous in (24) and (25), because both *the streets* and *in the streets*, *the passage* and *in the passage* denote a flat surface bounded on both sides, i.e. the dimension is preserved in every case. The same applies to (28), as *studnia* is usually associated with depth and therefore agrees well with *w studni*. Now, the expressions such as: *in the cave* (*w jaskini*), *in the kitchen (w kuchni)*, *in the tent (w namiocie)*, *in the car (w samochodzie)*, as well as *the kitchen*, *cave*, *tent*, *tank*, etc., imply three dimensions and denote some closed space — an interior. Some of them, however, (*the tent*, *car*, *palace*, and the like) can also be seen from some distance and perspective, thus losing the status of location and acquiring that of an object — and objects are usually perceived and described from the outside. For this reason sentences of the (b) group call for completely different interpretation from that of the (2) group. Thus sentence (32 a):

(32) (a) It was nice *in the street.*

does not necessarily imply (32 b):

(32) (b) *The street* was nice.

and vice versa, since (a) expresses one's impression or experience of being there, whereas (b) is concerned with the structure or architecture of the street, with the fact that it was well paved, clean, etc. Similarly, (33 a), expressing somebody's experience of being on the balcony (and possibly atmospheric considerations), is perfectly acceptable:

(33) (a) It was $\left\{\begin{matrix}\text{nice}\\ \text{pleasant}\end{matrix}\right\}$ *on Sue's balcony* despite the fact that it was ugly, old and crumbling, and the view was bad.

However, when hearing that *Sue's balcony is nice* one expects that it is nice due to its structure, decorations or facilities, and consequently (33 b) will sound contradictory or will make one wonder what it is that makes the balcony nice:

(33) (b) ***Sue's balcony*** is nice despite the fact that it is ugly, old and crumbling, and the view is bad.

The same difference obtains between (34 a), expressing somewhat more abstract location, and (34 b):

(34) (a) It is nice *in my family*. [= It might be nice to be among them, though they don't have to be nice at all — in fact they may all be rogues.]

(b) *My family* is nice.

To sum up and finish the argument let us consider one more example in which the distinction between the 'location' (the (a) version) vs 'object' interpretation seems most convincing:

(35) (a) John, come and see *how hot it is on the balcony*.

≠ (b) John, come and see how hot *the balcony* is.

The differences in cognitive structure between sentences of the (a) and (b) types correspond well to, and seem to have affected, the difference in the speaker's attitude. Due to their momentariness and unspecified character of what is referred to as 'it', sentences (a) render themselves much more easily than their (b) counterparts to express emotional meaning and personal reaction on the part of the speaker. They can be more spontaneous, moody, poetic, exhuberant, etc., cf.:

(36) (a) 'You must be very happy living in this wood and being glad whenever you like!'

'Only it's so very lonely here!' said Alice in a melancholy voice; and at the thought of her loneliness two large tears came rolling down her cheeks (Carroll 1951:161).

where it can be seen that Alice is uncertain, rather worried, as well as polite, which explains the indefinite tones in her complaint. Thus one feels sympathy for Alice in (36a), but the same sentence (although technically it can be substituted) when changed into:

(36) (b) (...) *'Only this place is so very lonely'*.

would be a more detached and objective statement, more descriptive and more determined. Consider also:

(37) (a) Far away down in the Bay of Belfalas, to which Anduin runs, *it is warm and merry, or would be but for the Enemy*, (Tolkien 1966:397).

(b) (...) *the Bay of Belfalas, to which Anduin runs is warm and merry* (...).

(38) (a) *'How do you like partizan work?'* (...)

'Very much', Robert Jordan said. He grinned, *'It is very healthy in the open air'*. (Hemingway 1968:193)

(b) (...) *The open air is very healthy.*

(37 a) when changed into (b) was said to have 'much less of an atmosphere',

to be 'a pure description', and 'sound like a travelogue'. Sentence (38 b) sounds more preachy than (38 a), etc. On the whole sentences (b) are characterized as 'objective', 'unemotional', 'dispassionate statements', based on objectively verifiable data, and therefore having an air of well grounded, reliable information. This provides the speaker with the grounds for being more determined and often for expressing evaluation.

There is yet another difference between sentences (a) and (b): since sentences (a) express personal reaction of the speaker and since such reaction occurs 'on the spot' and can only be based on his own physiological or psychological experience, the speaker must be at the time of his utterance at the location he refers to, or the experience must still be fresh in his memory. Sentences (b), on the other hand, have no such implication.

Whether differentiating or looking for analogies between the (a) and (b) sentence type the crucial task is to examine whether the pro-form *it*, present in English impersonal sentences of the (a) type and invariably deleted in Polish (*W studio jest ciemno*), is indeed a dummy pro-form having no meaning of its own and merely mirroring the meaning that can be found in the locative phrase. This approach, widely shared in linguistic literature,[1] seems to have been one of Fillmore's premises for postulating identical deep structure for both the (a) and (b) types: with *it* completely devoid of semantic content, and consequently unable to contribute to the meaning of the whole sentence it is the locative that matters and can be topicalized to produce the (b) form. The majority of examples given in this paper, however, show no justification both for this assumption and for the existence of synonymy between the two types of sentences. Thus *Izba przycicha* can only metaphorically be said to express the same as *W izbie przycicha*, at the same time confining itself to human beings as the source of noise. (cf. *Sala zamarła*.). *W izbie przycicha* makes no such implication and should rather be interpreted as *Whatever it was that was the source of noise*, although in both versions ambience is preserved, i.e. in both cases it seems necessary that the noise pervade the whole room and come from numerous sources. Such interpretation can be supported by the following example:

(39) (a) Talerz wymknął się z rąk Harrey i upadł na podłogę. Woda bulgotała w zmywakach. (...) *Naraz zrobiło się cicho*. Harrey stanęła tuż za mną. (Lem 1963:158)

(39') (a) Rheya dropped a plate on the floor. Water splashed in the sink.

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[1] Implicit or explicit treatment of ambient *it* as an empty surface element is common in linguistic literature, cf. for example Chafe (1970 : 101) who maintains that in sentences such as *It's hot* "no noun at all need be present (...)", their meaning "seems to involve nothing but a predication (...)", and consequently *it* "need not reflect anything at all in the semantic structure".

(...) *Suddenly it grew quiet.* Rheya was standing behind me. (Lem 1971:138)

where at least some sources of noise have been explicitely enumerated. The same conclusion can be drawn from:

(40) (a) *It was very nice at the party* except for the fact that Kowalski got too drunk and abused the minister's wife

in which *it refers* to all that was done and said at the party and one of the factors contributing to the meaning of *it* obtains explicit specification.

That *it* is not a semantically empty form can also be seen in the following example in which we are immediately aware of coocurrence of two different *its*:

(41) (a) They have no high mountains such as these and *in their country it always rains and it is always green.* (Hemingway 1968:196)

Following Platt (1971:38) it seems that overwhelming majority if not all sentences of the (a) type can best be characterized as expressing 'prevailing conditions' or 'atmosphere' of the place indicated in the locative phrase, 'atmosphere in its broadest sense'. On the whole considered examples of the (a) group strongly suggest that reference in them is made not to the place or location as such, but to something that occupies or is spatially associated with that place. Therefore the position that ambient *it* present in impersonal locative sentences in English entirely lacks semantic content can no longer be maintained.[2] For greater adequacy and generalization, an indefinite noun phrase element should be incorporated in the deep structure of locative impersonal sentences both in Polish and English; a noun phrase whose reference is opaque and whose meaning we can only guess. The nearest approximation to it can be achieved via the locative phrase, so that the whole noun phrase can be vaguely paraphrased as:

$$\textit{something which} \begin{Bmatrix} \textit{is in/at/near/(...) location } X \\ \textit{occupies/fills/pervades location } X. \end{Bmatrix}$$

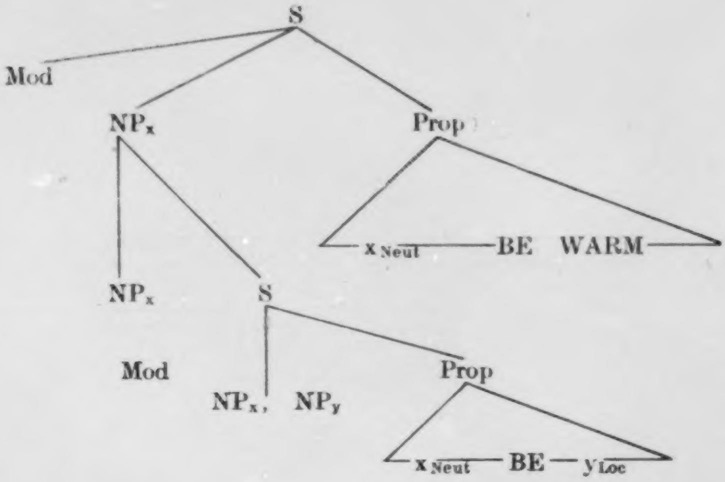
Since we intuitively feel that there is only one argument in the propositiona core of locative impersonal sentences, i.e. the (a) type of sentences, it seems most natural to treat the locative phrase as a part of a restrictive relative clause attached to the indefinite NP and modifying it. Thus deep structure of, for example, *It is warm in the garden* can be presented as (42):

Similar treatment can be found in Quirk et al. (1972 : 354): "Finally, a subject may lack semantic content altogether, and consist only of the meaningless "prop" word *it*:

It's raining (snowing) drizzling, etc. (...)
It's cold in here."

[3] For further evidence see Bolinger (1973).

(42)



where NPs=*the garden*, and NPs can be vaguely specified as 'temperature' or 'prevailing conditions'. Of course the same deep structure can be applied to Polish: *W ogrodzie jest cieplo*. At some stage of derivation we will have: *It — in the garden — is warm* as an intermediate structure with subsequent deletion of the proform *it* in Polish, and extraposition of the locative phrase in English.

The introduction of an indefinite NP with opaque reference in the deep structure of locative and other types of impersonal sentences gives a more insightful and general explanation of these sentences, than does the semantically empty proform *it* which is considered only as a surface structure phenomenon characteristic of the English language. Apart from making it possible to account for the difference in meaning between sentences referred to as (a) and (b) type in the present paper, it gives a starting point necessary for contrastive analysis of, say, the (a) type of sentences in the two languages. Finally, the same indefinite NP with opaque reference (except, of course, for the fact that it is not modified by a relative locative clause) is necessary for the analysis of other impersonal sentences, such as *How it thunders!*, *It's rather late, isn't it?*, or *One never knows*.

EXAMPLES TAKEN FROM:

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CLAUSES OF PURPOSE VERSUS PREPOSITIONAL PHRASES OF PURPOSE IN ENGLISH AND POLISH

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1.0. It appears that the adverbial (prepositional) phrases of purpose should be treated as reduced purpose clauses obtained by means of nominalization or deletion transformations. This approach allows the reduction of the different types of adverbial phrases to a common denominator and accounts for a verbal character of the phrases in question. Polish phrases of purpose contain a verbal noun or a noun which is an object of a deleted verb (cf. Lekov 1972:51 ff).

Furthermore, this approach accounts for the fact that the occurrence of the prepositional phrases of purpose is restricted to the underlying complex sentence of purpose containing certain semantically defined classes of verbs. Consequently, as will be shown later, it becomes unnecessary to distinguish between an adverbial and a prepositional object.

Some linguists point out that a sharp line between adverbials and prepositional objects cannot be drawn (cf. Jung 1966). If the categories are to be distinguished, the distinction is to be made by the different status of prepositions and constraints on the noun in the prepositional phrase in question (cf. Steinitz 1969:40).

1.1. As far as adverbials are concerned, there is the possibility of using a list of prepositions with a different semantics. As distinct from adverbials, for prepositional phrases only some fixed prepositions are at one's disposal.

1.2. No restrictions are imposed on nouns which are components of prepositional objects (e. g. concrete or abstract). According to R. Steinitz, (1969 : 40) "Nominale Komponenten von Präpositionalphrasen (PP) können Nomina verschiedener Art sein, beispielweise Konkreta oder Abstracta". On the other hand, the nominal component of an adverbial undergoes certain restrictions; — e. g. the adverbial of direction cannot contain an abstract noun. "Nominale Merkmale und Adverbialklassen bedingen einander. Beispielweise enthält die nominale Komponente einer Richtungsbestimmung das Merkmal (-Abstr), d. h. sie kann kein Verbalabstraktum sein" (cf. Steinitz 1969 : 42).

The above statement is exemplified by the following sentences:

(1) *Er lief zum Start.* (-abstr)
(=a place where he should start)

(2) *Die Mürbitzer freuten sich über den glatten* Start *ihrer Mannschaft.*
(+abstr) (=the fact that their team had started)

The sentence (2) may be paraphrased in this way:

(3) *Die Mürbitzer freuten sich darüber, dass ihre Mannschaft glatt gestartet war.*

This argument does not appear justified, even if we take into account only some types of adverbial phrases, since certain restrictions are imposed on the noun which is a component of a prepositional object. (e. g. in the sentence containing "sich freuen über" an abstract noun which may alternate with an intentional sentence is required).

1.3. As far as a preposition within an adverbial phrase is concerned, it differs by at least one semantic feature from the other prepositions which may occur in the same phrase. The different semantic features of prepositions which may occur within an object prepositional phrase may be distinguished only by means of so-called transferred meaning ("übertragene Bedeutung" — cf. Steinitz 1969 : 45).

According to R. Steinitz only prepositions which are components of adverbial phsases should be included in the basis since they have their semantic interpretation. The prepositions within an object prepositional phrase should not appear in the deep structure of a sentence.

The prepositional object is to be represented as NP which may be optionally realized as PP, depending on the verb in the sentence.

Consequently, the preposition should have the status of a case feature. — "Mit der Festlegung, dass Tiefenstruktur, die einem Satz zugrunde liegt, Basis für dessen semantische Interpretation ist, ist auch entschieden, dass alle Einheiten, die Elemente der Tiefenstruktur sind, semantisch interpretiert werden, was nicht für Einheiten gilt, die erst durch Transformationen zu einer Kette adjugiert werden. Auch dieses theoretische Postulat ist geeignet, die vorgegebenen Erscheinungen zu erklären. Danach werden die Präpositionen, die Subkomponenten von Adverbialen sind, also eigenständige Bedeutung haben, in einer Form in die Basiskomponente der Grammatik eingeführt, die eine ihnen angemessene semantische Interpretation garantiert. (...) Sind dagegen die Präpositionen Bestandteil von Präpositional-objekten, und haben sie somit keine Eigenbedeutung, so sollen sie in der Tiefenstruktur (TS) eines Satzes nicht erscheinen". (Steinitz 1969 : 44ff)

1.4. Let us consider the following verbs which may be used in a sentence with a prepositional phrase denoting purpose:

(5) *strive for — /dążyć do —, starać się o —*
(6) *struggle for — /walczyć o —*
(7) *go for — /iść po —*
(8) *send for — /posłać po —*

According to traditional syntax, the Polish phrases $o+NP/_{Acc}$, $do+NP/_{Gen}$ are treated as prepositional objects, while the construction $po+NP/_{Acc}$, as an adverbial of purpose. It appears that if any meaning is attached to the preposition *for* in English equivalents, the meaning should be indicated by various Polish prepositions. The use of prepositions *do, o* depends on the verb in the sentence. However, the occurrence of the preposition *po* is also restricted to a certain class of verbs, viz. intransitive verbs of motion and the verbs *słać, wysyłać, sięgnąć*. — Cf. the examples of unacceptable sentences:

(9) **Strajkują po podwyżkę.*
(10) **Pracuje po wysoki zarobek.*

There is no difference in the behaviour of both types of phrases in this respect. They differ, however, in the constraints imposed upon the nominal constituent of the phrase:

(11) *Walczy o zwycięstwo.*
He struggles for a victory
or (11a) *Walczy o zdobycie zwycięstwa.*
(12) *Idzie po wodę.*
He goes for water.
but not (12a) **Idzie po przyniesienie wody.*
(13) *Wysłał po niego.*
He sent for him.
but not (13a) **Wysłał po przyprowadzenie jego.*

In the phrases containing *po* the use of a verbal noun is not possible. On the other hand, the constructions containing *po* may be paraphrased only by clauses of purpose with a verb having the general meaning 'bring'. In other words, it appears justified to state that after the preposition *po*, the deletion of the underlying verb having the general meaning 'bring' is obligatory. The following sentences may be quoted as further support for this contention:

(14) *Przychodzą po mnie.*
They come to take me.
(15) *Co byś zrobił, jak by po ciebie przyszli?*
What would you do if they come to arrest you?

Polish sentences (14), (15) are unambiguous, since the deleted verb has the general meaning 'bring', 'take'. The preposition *po* cannot involve meaning different from purpose, e.g. it cannot function as a formal exponent of Benefactive, in the sense given by Fillmore (cf. Platt 1971 : 51ff). This may be exemplified by the following English sentences in which the prepositional phrase containing *for* may express Benefactive.

(16) *They come for me.*
(17) *What would you do if they came for you?*

In the sentences (14) and (15) Polish prepositional phrases containing *po* correspond to English infinitive clauses of purpose. On the other hand, as the occurrence of *po* — phrases is restricted to sentences containing a verb of motion (or the verbs *posłać, wysłać, sięgnąć*) in its main clause (i.e. in the underlying higher sentence — see diagram 1) and the verb having the general meaning 'bring' in its subordinate clause (i.e. in the underlying lower sentence), English prepositional phrases containing *for* will correspond to Polish purpose clauses (or prepositional phrases containing other prepositions), if the above conditions are not satisfied. In the following sentences, English prepositional phrases denoting purpose correspond to Polish purpose clauses (or infinitive constructions).

(18) *I will ring for some sandwiches.*
Zadzwonię, żeby przynieśli kilka kanapek.
(19) **Zadzwonię po kilka kanapek.*
(20) *A wine shop was open and I went for some coffee.*
Otwarta była winiarnia i wszedłem napić się kawy.
(21) *Otwarta była winiarnia i wszedłem po kawę.*

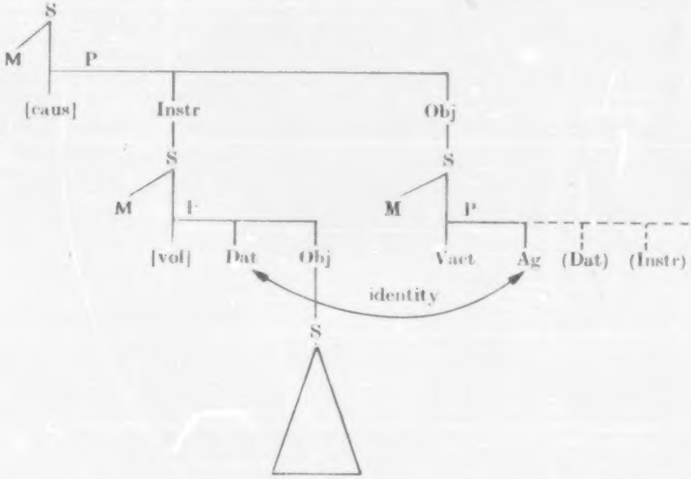

Diagram 1
Deep structure of an expression of purpose

Where
(caus), (vol) — abstract verbs (cf. R. Lakoff 1969 : 161)
Vact — verb of action
Dat, Instr, Obj — deep structure cases (cf. Fillmore 1968a)
M, P, — modality, proposition (resp.)//

The sentence (21) is perfectly grammatical. Its meaning is, however, 'to bring some coffee', 'to buy some coffee'. As stated above, prepositional phrases containing *po* may be paraphrased only by purpose clauses having a semantically defined class of verbs.

It should be noted that the prepositional phrase which occurs with the verb *sięgnąć* is usually treated as the prepositional object of the verb. English equivalents appear as prepositional phrases with *for* or as infinitive of purpose:

(22) *I reached back behind the seat for a bottle of the barbera.*
Sięgnąłem za siebie po butelkę barbery.
(23) *Sięgnąłem za siebie po pistolet.*
I put my arm behind to loosen my pistol.

It appears that the only difference between the above prepositional phrases and the phrases occurring in the sentences containing an intransitive verb of motion relies upon the general meaning of the deleted verb of the underlying clause of purpose. The sentences (22) and (23) may be paraphrased by complex sentences of purpose in which the subordinate clause contain a verb having the general meaning 'take' rather than 'bring'. E.g. the sentence (22) may be paraphrased by (22a):

(22a) *Sięgnąłem za siebie, żeby wziąć butelkę barbery.*

To sum up, both types of *po* — phrases have the same properties, since: 1) they may be paraphrased by clauses of purpose containing a semantically defined class of verbs, 2) the usage of the verbal noun after *po* is not possible. Consequently, it appears that there is no sharp distinction between so-called prepositional objects denoting purpose and adverbials of purpose.

Such a distinction would be artificial, since the phrases, according to traditional syntax, belonging to different categories share many properties.

2.0. The prepositional phrases denoting purpose (i.e. which may be paraphrased by the clauses of purpose) may be called 'language means used for expressing purpose'. This term corresponds to the term 'jazykový prostředek' introduced by F. Daneš (1967:341). Discussing the prepositional phrases denoting the adverbial of cause proper ('obstojatel'stvo sobstvennoj pričiny') in Czech, (cf. S. Machová (1972:230ff)) propose the following classification:

1) The type of prepositional phrase depends entirely on the main clause (called by Machová 'main phrase' — 'upravljajuščaja fraza'), since the superficial form of the main clause is not relevant. The semantic properties of the clause of cause proper are irrelevant.

Example: *zemřít na* – (to die of –)

2) The type of prepositional phrase depends on the superficial reflex of the causal clause (called by S. Machová 'sobstvenno pričinnaja fraza'). The semantic properties of the main clause are irrelevant. The phrase of proper cause may be expressed as:

a) only one construction. Example: *na objednávku* (bespoke)

b) some of the defined constructions. Example: *na rozkaz, z rozkazu* (by order of)

3) The form of the prepositional phrase depends simultaneously on the main clause and the semantic properties of the phrase of cause proper. The phrase of cause proper may be expressed as:

a) one defined construction. Example: *vystroit se z hravosti* (to trig oneself because of one's inclination to make fun)

b) some of the defined constructions. Example: *pro své vnější vybavení patří tato kniha k nejdoskonalejším — svým vnějším vybavením patří tato kniha k nejdoskonalejším* (Considering its external aspect, this book belongs to the most excellent.)

The above classification differs from the division of prepositional phrases into prepositional objects and adverbials. The constructions belonging to the 3rd group (i.e. depending on the main clause and the superficial reflex of the subordinate clause) are explicitly mentioned. Otherwise the phrases in question would be divided between two functional categories. It should be noted that:

1) There is no sharp line between the first and third groups in Machová's (1972 : 232) classification.

2) No meaning is attached to the prepositions. The forms of the prepositional phrases are selected by the nouns within a prepositional phrase. (In contrast to the classification presented by R. Steinitz (1969 : 91)).

3.0. We shall adopt the classification presented above, including the first type of prepositional phrases, frequently called 'prepositional objects'. According to S. Machová (1972 : 232) the term 'adverbial of cause proper' ('obstojatel'stvo sobstvennoj pričiny') is restricted to the phrases mentioned under 2nd and 3rd groups. There are, however, some arguments for including the first group of prepositional phrases into consideration:

1) All prepositional phrases denoting purpose depend on the verb of the main clause in the sense that the main clause should contain a verb of action (otherwise, the phrase is not a phrase of purpose). It appears that the first group differs from the third only in the number of selectional features imposed on the main clause. Consequently, we shall treat the phrases in which no restrictions are imposed on the main clause, except it should contain a verb of action, as phrase of the 2nd group.

2) As will be pointed out below, the constructions belonging to the first and second group share many properties.

3) We are interested in the classification of a semantically defined class of prepositional phrases rather than phrases belonging to a certain functional category.

The object of our classification are prepositional phrases which: 1) occur in the sentences containing a verb of action, 2) may be paraphrased by an intensional sentence introduced by *żeby*, *aby*, *by*, etc.

Polish prepositional phrases of purpose may be classified in the following way:

TYPE I

The usage of a preposition depends on the verb of the main clause (the features of the noun within a prepositional phrase are irrelevant).

Examples: *walczyć o, starać się o, dążyć do*

(24) *Walczy o pierwszeństwo.*
He vies for superiority.

The sentence (24) may be paraphrased as follows:

(24a) *Walczy o zdobycie pierwszeństwa.*
(24b) *Walczy (o to), żeby zdobyć pierwszeństwo.*
He vies to be superior.

In the above constructions, all types of verbal nouns may be used in the prepositional phrase. However, the deletion of a verbal noun is possible only if the verb of the underlying purpose clause (from which the verbal noun is derived) has the general meaning 'attain', 'achieve'.

(25) *Stara się o utrzymanie stanowiska.*
He tries to keep his post.
(25a) *Stara się o stanowisko.*
(25b) *Stara się (o to), żeby utrzymać stanowisko.*

The sentence (25) may be paraphrased by the sentence (25b), but not by (25a) although the sentence (25a) is perfectly grammatical. As the verbal noun may be deleted only if it is derived from a verb having the general meaning 'attain', 'achieve', the sentence (25a) may be paraphrased by the following sentence:

(25c) *Stara się o zdobycie stanowiska.*

TYPE II

The features of the verb in the main clause are irrelevant except that it should contain a verb of action.

Examples: *dla bezpieczeństwa, dla niepoznaki, dla wygody, na cześć, na powitanie.*

1st group — The underlying subordinate clause (i.e. the lower sentence — see diagram 1) contains a verb denoting state.

Examples:

(26) *Zerwałem już gwiazdki, ale zrobiłem to* **dla** *wygody* (=...żeby było wygodnie.)
I had taken off the stars, but that was for convenience.

(27) *Mogę tylko powiedzieć, że* **dla** *bezpieczeństwa* (=żeby było bezpiecznie) *powinno się zaczekać z otwarciem kolana co najmniej sześć miesięcy.*
I can only say to be on the safe side you should wait at least six months before opening such a knee.

(28) *Dla tym większej niepoznaki* (=żeby tym bardziej nie można było poznać) *nałożyłem zielony kapelusz z małym rondem oraz płaszcz nieprzemakalny.*
To improve my disguise I obtained a green hat with a narrow brim and a raincoat.

(29) *Nie można dodawać żadnych figli scenograficznych ani dla dowcipu* (=żeby było dowcipnie) *ani dla dekoracji* (dekoracyjności).
No scenographic tricks must be added to the play either for the sake of humor or for the sake of decoration (decorativeness).

It appears that the prepositional phrases containing *dla*, which may be paraphrased by the clauses of purpose having a verb denoting state (superficially characterized as *dla* — phrases with a noun derived from an adjective and not a verbal noun denoting action) are not stylistically marked, in contrast to the constructions consisting of '*dla* + verbal noun.'

Examples: *dla zrozumienia* potrzeb wsi
(in order) *to understand* the wants of the country
dla załatwienia *tej sprawy*
(in order) *to settle* this business

The correctness of the latter phrases is frequently questioned. Their occurrence seems to be restricted to certain subcodes (e.g. the press language).

2nd group — Some of the prepositional phrases expressing purpose may be formed by the employment of prepositions of direction. This type of constructions appears in Polish sentences as well as in their English counterparts. The phrase in question may be treated as a postsemantic realization of the more abstract expression of purpose by means of the more concrete adverbial of direction (cf. Chafe 1970 : 44), at least as far as the sentences containing a verb of motion in the main clause are concerned. It appears that the distinction between adverbials and prepositional objects by means of restrictions imposed upon the noun as proposed by R. Steinitz (cf. Steinitz (1969 : 40) discussed above) cannot be accepted, since the difference between various types of adverbials (e.g. between adverbial of purpose and direction) is based on the same criterion (cf. the ambiguous sentence (1) *Er lief zum Start*).

The following sentences exemplify prepositional phrases expressing purpose which are superficially identical to adverbials of direction:

(30) *Któregoś popołudnia pojechaliśmy na wyścigi.*
One day in the afternoon we went to the races.

(31) *Państwo wyjedziecie zwyczajnie, tak jakbyście szli na spacer.*
You must go out, as if you were going for a walk.

(32) *Spojrzała. zobaczyła mnie i uśmiechnęła się, a ja wyszedłem na jej spotkanie.*
She looked, saw me and smiled and I went to meet her.

(33) *Who goes to the attack? asked Gavazzi.*
Kto idzie do ataku? — zapytał Gavazzi.

It should be pointed out that similar superficial realization of the expression of purpose may be observed in English equivalents of the sentences (30) and (33).

3rd group — Some of the prepositional phrases expressing purpose cannot be compared with adverbials of direction, although they contain the preposition *na* which occurs frequently in phrases denoting direction. The phrases in question correspond to English infinitive phrases or to a single noun (without a preposition).

Examples:

(34) *Jedzie pan sobie do wielkiego miasta i będzie pan miał swoją Angielkę na pieszczotki.*
You go to live in a big city and have your English *to cuddle you.*

(35) *On był dawniej starszym kelnerem, a ona pracowała w tym samym hotelu jako pokojówka i oboje odkładali pieniądze na kupno tego domu*
He had been a head waiter and she had worked as a maid in the same hotel and they had saved their money to buy this place.

(36) *To chodźmy na ryby.*
Come on out fishing.

(37) *Wybierzemy się kiedyś na narty.*
We'll ski some day.

The above Polish prepositional phrases are characterized by the following features:

1) They depend, to some extent, on the verb in the main clause in the sense that their usage in sentences containing various verbs is more or less acceptable (e.g. ... *odkładali na kupno tego domu* = *żeby kupić ten dom* vs.? *wyjechał na kupno tego domu*). Consequently, the prepositional phrases in question should be treated as an intermediary group between the IInd and IIIrd types of phrases.

2) They may function as attributives. E.g. *pieniądze na kupno*, *torba na ryby*, etc. As will be discussed later, the other prepositional phrases of purpose cannot be used in this way. Examples: *idzie po wodę* vs. *woda do przyniesienia*,? *wyjechał dla podpisania dokumentu* vs. *dokument do podpisania* (not *dla podpisania*).

TYPE III

The third type is represented by phrases containing *po*, which require the verb of motion and do not allow the verbal noun in the prepositional phrase. Moreover, the noun should be an object of the deleted underlying verb having the general meaning 'bring'.
In other words, *po* — phrases may be used if the underlying main clause contains a verb of motion (or verbs 'posłać', *wyslać*, *sięgnąć*) and the (underlying) clause of purpose contains a verb having the general meaning 'bring'. The deletion of the verb in the clause of purpose is obligatory.

Examples:

(38) *We went for a stretcher, but there wasn't any.*
Polecieliśmy po nosze, ale nie bylo.
(39) *We had to telephone to Lake City for him.*
Telefonowalismy po niego do Lake City.
(40) *My dear fellow, it's easier for me to let you have them than to go out and buy them.*
Mój drogi, mnie jest latwiej coś podarować niż wychodzić po to na miasto.

English equivalents of Polish *po* — phrases either contain the preposition *for*, which is identical to the preposition characterizing a superficial exponent of Benefactive, or they have the form of an infinitive purpose clause in which the underlying verb (having the general meaning 'bring') appears as a concrete verb (e.g. in the sentence (40)).

Polish complex sentences of purpose may be superficially represented as simple sentences containing various types of prepositional phrases or infinitive (so-called 'osobliwy okolicznik celu') as is shown in the following diagram (diagram 2). The arrow 'right' means that the verb is specified '+' to a mentioned feature. The arrow 'down' means '—' specification.

4.0. In some linguistic papers the prepositional phrases containing the preposition *do* are treated as phrases of purpose. The difference in meaning is defined as 'more concrete' ('do' — phrases) vs. 'more abstract' ('dla' — phrases) (cf. Buttler 1973 : 358ff).
Examples (quoted by D. Buttler):

(41) *Przyslano dokumenty do podpisania.*
(42) *Dla podpisania dokumentów musialem przyjechać do biura.*

According to D. Buttler, the other feature differentiating meaning is the fact that *do* indicates the permanent purpose ('sygnalizuje cel stały'), while *dla* the casual purpose ('cel doraźny'). The discussed *do* — phrases may function as attributives. The prepositional phrases denoting purpose, except those listed under 2nd group of the IInd type (i.e. the prepositional phrases of purpose formally identical to the adverbials of direction), cannot function in this way.

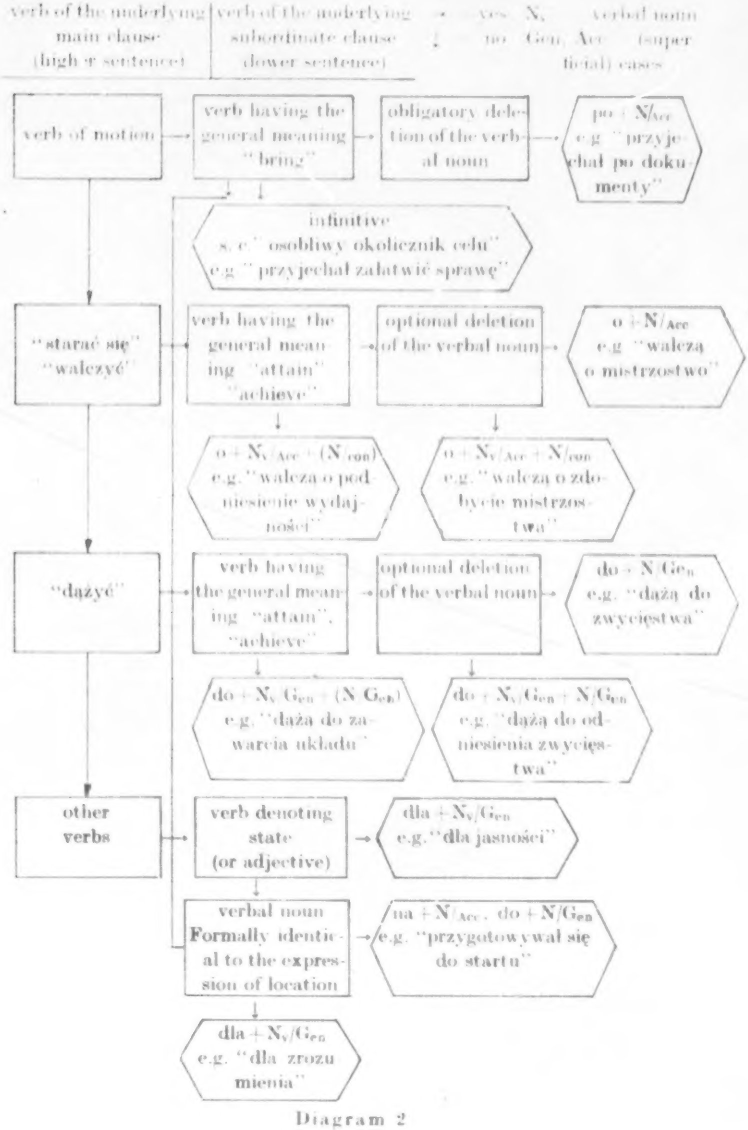
verb of the underlying main clause (higher sentence)
verb of the underlying subordinate clause (lower sentence)
→ — yes
↓ — no
N_v — verbal noun
Gen, Acc — (superficial) cases
verb of motion
verb having the general meaning "bring"
obligatory deletion of the verbal noun
po + N/Acc e.g. "przyjechał po dokumenty"
infinitive s. c. "osobliwy okolicznik celu" e.g. "przyjechał załatwić sprawę"
"starać się" "walczyć"
verb having the general meaning "attain" "achieve"
optional deletion of the verbal noun
o + N/Acc e.g. "walczą o mistrzostwo"
o + Nv/Acc + (N/con) e.g. "walczą o podniesienie wydajności"
o + Nv/Acc + N/con e.g. "walczą o zdobycie mistrzostwa"
"dążyć"
verb having the general meaning "attain", "achieve"
optional deletion of the verbal noun
do + N/Gen e.g. "dążą do zwycięstwa"
do + Nv/Gen + (N/Gen) e.g. "dążą do zawarcia układu"
do + Nv/Gen + N/Gen e.g. "dążą do odniesienia zwycięstwa"
other verbs
verb denoting state (or adjective)
dla + Nv/Gen e.g. "dla jasności"
verbal noun Formally identical to the expression of location
na + N/Acc, do + N/Gen e.g. "przygotowywał się do startu"
dla + Nv/Gen e.g. "dla zrozumienia"

Diagram 2

Examples: *nóż do konserw, papiery do podpisania*

(43) *Na stojakach ułożone były rakiety, które miały służyć do wezwania wsparcia artyleryjskiego, albo do sygnalizacji, gdyby kable telefoniczne zostały przerwane.*

There were racks of rockets standing to be touched off to call for help from the artillery or to signal with if the telephone wires were cut.

(44) *Na co są te lustereczka oprawne w drzewo? — Do zwabiania ptaków.*
What are those little mirrors in wood for? — They are for attracting birds.

In the above sentences the following properties may be observed:

1) There is no verb denoting action in the (underlying) main clause.

2) The prepositional phrases refer to the noun in the main clause. They may be paraphrased by the relative clauses.

Examples: *rakiety do sygnalizacji* — 'rakiety, które służyły do sygnalizacji', *lustereczka do zwabiania ptaków* — 'lustereczka, które służyły do zwabiania ptaków'.

Polish prepositional phrases containing *do* correspond to English 'purpose' adverbials (R. Lees (1968 : 79ff) used this term in quotation marks) expressed by the infinitive phrases.

Examples (cited by R. Lees):

(45) *The car is here for him to drive to the station in.*
Samochód jest dla niego, żeby jeździł nim na stację.
Samochód jest dla niego do jazdy na stację.

(46) *The motor is to drive the shaft.*
— Motor służy (jest) *do napędzania* wału.

(47) *The motor is for him to practice on.*
Motor jest dla niego do ćwiczeń (treningu).

The above sentences differ from the sentences of purpose, since they do not satisfy the basic condition viz. the presence of the verb of action in the main clause.

Discussing the above type of clauses (we propose to call them 'clauses of destination'), R. Lees (1968 : 79) points out the difference between them and the clauses of purpose: "We shall omit from considerations here sentences of the form: 'He leaves to be alone.' and 'He leaves for you to be alone.' considering them to be reductions of sentences containing in order for N to."

According to R. Lees the infinitive of 'purpose' is derived in this way:

(46) *The motor* is for it.
The motor drives the shaft. The motor is for for *the motor* to drive the shaft.

(47) *The shaft* is for it.
The motor drives *the shaft*. The shaft is for for the motor to drive *the shaft*.
The shaft is for the motor to drive.

The following properties of the sentences of "purpose" (destination) should be pointed out:

1) The matrix sentence does not contain a verb of action. The verb of action appears in the constituent sentence.

2) The infinitive of 'purpose' corresponds to Polish 'do' — phrases ('dla' functions in this type of sentence as a formal exponent of the Benefactive, not within the phrase of 'purpose' (destination)).

(48) *The motor is to drive the shaft.*
(49) *The motor is for the driving of the shaft.*
(50) *The motor is for this purpose.*
Motor jest do napędzania walu.
Motor jest do tego celu.
But (51) *The motor is for him to pump the water.*
Motor jest dla niego do pompowania wody.

(where *dla* occurring with an animate noun is a formal exponent of the Benefactive).

3) Polish 'do' — phrases may be paraphrased by clauses introduced by *żeby*, superficially identical to the clauses of purpose. However, it should be pointed out that the usage of infinitive is not possible if Instrumental (and not Agentive) is the subject of both clauses, although subject identity condition is met.

(52) *Motor jest* (po to), *żeby pompował wodę*. (Instrumental)
vs. (53) *Motor jest* (po to), *żeby* (nim) *pompować wodę*. (Implied Agent)
(54) *Motor jest* (po to), *żeby napędzał wał*. (Instrumental)
vs. (55) *Motor jest* (po to), *żeby napędzać wał*. (Implied Agent)

4) Polish 'do' — phrases function as equivalents of English attributive constructions. However, in Polish no superficial distinction is made between (deep structure) Instrumental and Objective:

a house for rent (Obj.) — dom do wynajęcia
the car to drive (Instr.) — wóz do jazdy
the goods to be sent (Obj.) — towary do wysłania

It seems that the sentences of destination may be traced back to the following type of underlying structure which differs from that of the sentences of purpose in the absence of (caus) and V_{act} (in the higher sentence).

It is possible that the abstract verb (vol.) should be replaced by (should) — (cf. Hartung 1971 : 203). We shall restrict ourselves to sketching up the basic differences between phrases of purpose and phrases of destination.

Three types of Polish prepositional phrases called customary 'adverbials of purpose' represent three different relations (cf. diagram 4). We have marked on the diagram the relations between lexical elements manifested in the surface structure. If we assume a verb having the general meaning 'bring' to underly the prepositional phrases containing *po*, two arrows will be in line.

5.0. The Benefactive in the deep structure is usually defined as "the Grammatical Meaning concerned with the perceived beneficiary of an action

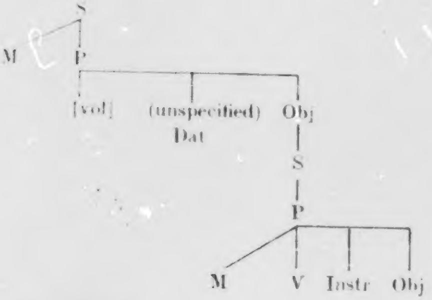
S
M
P
[vol]
(unspecified) Dat
Obj
S
P
M
V
Instr
Obj

Diagram 3

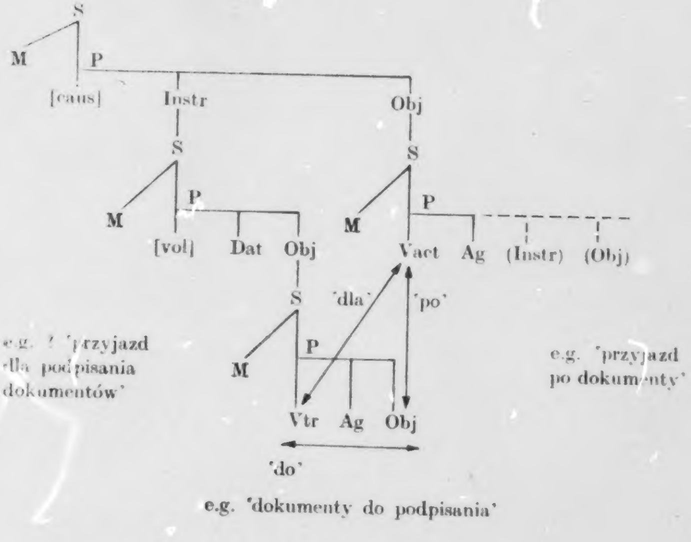
S
M
P
[caus]
Instr
Obj
S
M
P
[vol]
Dat
Obj
S
M
P
Vact
Ag
(Instr)
(Obj)
S
'dla'
'po'
e.g. ? 'przyjazd dla podpisania dokumentów'
M
P
e.g. 'przyjazd po dokumenty'
Vtr
Ag
Obj
'do'
e.g. 'dokumenty do podpisania'

Diagram 4

or state. By beneficiary is meant the animate being (or human institution like school, nation, etc.) which is perceived as intended to benefit" — (cf. Platt 1971 : 47). The formal exponent of Benefactive is often the prepositional phrase commencing with *for*. The same preposition may function in the prepositional phrases of purpose.

Examples (quoted by J. Platt):

(56) I am going for food.

(57) Jack dug a hole for water.

J. Platt proposes to distinguish a separate Grammatical Meaning (this term corresponds to Fillmore's Case in the deep structure) called 'Purposive' whose diagnostic test would be "for what purpose is something done".

We are not convinced that the introduction of this notion is indispensable because: 1) the meaning 'purpose' seems to be attached to the arrangement of various semantic elements rather than to certain semantic classes of nouns, 2) the diagnostic test formulated in this way makes no distinction between phrases of purpose and phrases of destination (according to R. Lees — phrases of 'purpose'). However, we would like to point out that in Polish both categories (i.e. Benefactive and Purposive) are kept distinct in the surface structure. E.g. the preposition *po* cannot be replaced by *dla*, which functions as a formal exponent of Benefactive. The purposive usage of *dla* (except some idioms, e.g. *dla chleba*) is restricted to nouns derived from verbs or from adjectives (i.e. to abstract nouns which cannot be interpreted as beneficiary).

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WORD-ORDER. A SEMANTIC PHENOMENON?

MAŁGORZATA GÓRNA

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The main question raised by the present paper is whether it is justified to claim that word order changes are in any way conditioned by or connected with the deep structure level of language, or, to be more precise, with the semantic level of representation which has been theoretically developed, among others, by McCawley (1970b) and Postal (1971)[1].

Earlier works written within the framework of transformational grammar (Chomsky 1957) treated word-order changes as the result of optional transformational rules operating merely on the surface structure and having nothing to do with the deep structure and the semantic level of representation. Later on the problem was raised whether word-order changes should be accounted for in grammar at all, being merely a stylistic matter; thus the problem was relegated to the group of surface structure phenomena, not justified by any deeper changes (Chomsky 1965 : 126 - 127).[2]

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[1] We follow the notion postulated by McCawley (1970b : 242): "... this level of representation (with prelexical transformations) is a version of TG grammar in which there is no such level as Chomsky's deep structure, the base component of a grammar generates semantic representations and the dictionary entries for various lexical items are in effect transformations which insert those lexical items in place of various complexes of semantic material which may arise through prelexical transformations". Similar proposals, within the framework of generative semantics, have been advocated by Postal who claims that the deep structure of a sentence is its semantic representation. Consequently there are transformations operating on "prelexical structures" and a homogenous mapping of semantic representations onto surface structures is possible (Postal 1971:249 - 230).
Another theory, that of interpretive semantics (advocated, among others, by Jackendoff) claims the necessity of taking surface structure constituents into consideration while analyzing the semantic structure of sentences (cf. Chomsky 1972b; Jackendoff 1972). They claim that to interpret properly the answers to the following question:

Did John hit Bill?

one has to wait till the surface word order. This conception does not have to be true, as the possible answers are included in various presuppositions and other elements of the semantic structure, such as emphasis.
Also, although generative semantics has to assume different derivational constraints on lexical items, it is possible to achieve convincing explanations within the semantic representation. E. g. the ungrammaticality of sentence 2:

1) The cat chased 27 mice for two hours.

Only fairly recently some papers appeared which, although tentatively, put forth some new possibilities of treating word order (cf. Kiefer 1970). They postulate deep structure justifications for word-order changes; also they suggest connections between emphasis, topic-comment relations and word-order changes. These proposals are far from constituting a consistent theory, still they point to some new possibilities of investigations.

The aim of the paper is to demonstrate that word-order changes are not exclusively surface structure phenomena, that the order of constituents in a sentence is not a matter of stylistic choices. Rather the opposite seems to be true: word-order changes are probably conditioned by many factors, all of which belong to, or are, in one way or another, connected with the semantic level of representation. If this can be proved, a new, semantic aspect of word-order might be consistently exposed.

The theory of the transformational generative grammar, and in particular of generative semantics (as understood, among others, by McCawley 1970b and Postal 1971) has been chosen for the purposes of the present analysis because it seems to provide us with the possibility of gaining deeper insights into processes taking place in language and of explaining facts which, in the light of older theories, appear to be either irregular or seemingly unaccountable for. Thus we shall be concerned here with the two structures of language, but our main interest will be focused on those phenomena which seem to belong exclusively to the surface structure but which are actually closely connected with the deep, semantic level of representation and thus are of semantic nature themselves: emphasis, intonation, word-order, etc.

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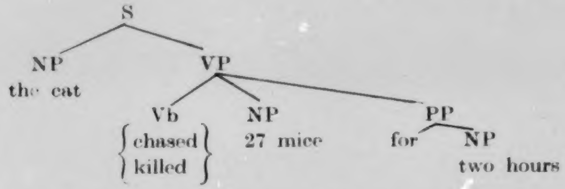
2) The cat killed 27 mice for two hours.
may be explained by the difference in lexical items and the possible semantic contexts in which they are used, while their surface structure does not account for the difference:



[2] However, Chomsky noticed and stressed the importance of word-order changes, although at that time he did not see any theoretical possibilities of stating conditions for reordering and its semantic functions (Chomsky 1965 : 126).

One reservation should be made at this point and it concerns the model of language which will be used here. Although it is claimed to be a semantically based model, it does not assume any priority as to the temporal order of constituents. That is, it does not try to grasp the whole problem exclusively from the point of view either the speaker or the hearer. It seems that the preferable model is one which tries to state as objectively as possible relations holding between levels of language, without reference either to the speaker's or the hearer's point of view.

RELATIONS OBTAINING BETWEEN WORD-ORDER CHANGES AND EMPHASIS, INTONATION AND SEMANTIC CONTEXTS

As has been stated above, word-order changes seem to be, in one way or another, connected with such phenomena as emphasis, intonation, topic—comment relations, presuppositions and contexts wider than a sentence and constituting bigger semantic units. Although a clear-cut division is impossible as all the above-mentioned factors seem to be interwoven with each other (as will be demonstrated later on), we will try to separate them as much as possible for reasons of clarity.

As far as emphasis is concerned, it does not seem very probable that a sentence becomes emphatic (that is, it acquires a new shade of meaning, or different presuppositions become appropriate for this sentence) because word-order has changed. The opposite sounds more plausible. Perhaps both word-order and emphasis are interwoven with each other in the semantic representation. Word-order would then only reflect deeper changes. If we take a sentence:

1) Come here I will!

it is noticeable that it is emphatic, that emphasis is placed on the item *come* and that it differs radically from:

2) I will come here.

Sentence 1) cannot stand by itself, that is it cannot initiate a discourse. It needs special presuppositions to the situation:

3) *I promised really to come* so:

4) Come here I will!

Sentence 1) presupposes a certain context of a strong promise and somebody's intention to fulfil the promise. The semantic context of sentence 2) is different and rather neutral; it may stand without presuppositions specifying additional semantic reservations as to the context. Thus the semantic representations of the above two sentences must be different in some respects.

It has been claimed (Marek 1972 : 425)[3] that intonation does not change the meaning but points to different underlying representations which result in different sentences; however, these problems are far from being clear at present and require a tremendous amount of further investigations. Quite clearly word-order changes are connected with the change of intonation patterns and the change of meaning, which might suggest quite a close relation between those elements in the semantic representation.

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[3] „... fakt, że to samo zdanie z różną intonacją wyrażać może różne "nastawienia" emocjonalne mówiącego, nie oznacza wcale, że intonacja jest w stanie zmienić znaczenie

Another aspect in which it is possible to consider word-order changes is the semantic context of a given sentence. At present it is not absolutely clear how wide such a context should be; probably a bigger semantic unit is meant within which a given sentence functions. However, one thing is certain: the order of sentence constituents and the possibilities of deletion of some elements in the surface structure depend upon the context of this sentence. There are sentences which cannot initiate a discourse, unless the order of constituents is changed, or a sentence acquires some additional factors in the deep structure (e.g. emphasis) and thus becomes a different sentence, e.g.:

5) Jan przyszedł.
5′) John came.

Sentences 5) and 5′) are acceptable and can stand by themselves, without any additional information, while sentences:

6) Przyszedł Jan.
6′) Came John.

cannot be initial sentences and require a further context, e.g. ***Przyszedł Jan** a zaraz za nim Piotr*; also they require a slightly changed semantic representation: in 6) it is Jan and nobody else who came.

It appears that all the above-mentioned factors are interwoven in the semantic representation where they all interplay, so the separation of them would be unnatural and even impossible. In the following part of the paper these factors will be often mentioned as conditioning and influencing word-order changes.

ORDERING OF CONSTITUENTS IN SEMANTIC REPRESENTATION

One of the crucial problems the solving of which is of immense value for the question of word-order, is the problem whether in the deep structure there is any ordering of constituents or any hints to a possible order of surface

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emocjonalne wypowiedzi. (...) intonacja jest jedynie ważnym nosicielem tego znaczenia (...) Intonacja jest więc bardzo ważnym elementem pozwalającym na odczytanie właściwego znaczenia zdania, ale jest temu znaczeniu podporządkowana. Podobną zależność można obserwować badając relacje między składnią a intonacją. To nie intonacja zmienia wewnętrzną strukturę zdania, lecz właśnie sama struktura wymaga takiego a nie innego wzoru dla uniknięcia dwuznaczności".

elements. The examples, which will be analysed below, might serve as an argument in favour of the theory, advocated by some scholars,[4] that the semantic structures of sentences in a way predict or condition the order of the elements in their surface structures and the relations holding between semantic concepts or groups of concepts. Let us consider the following examples:

7) To her party *came* all of the bunch.

8) To her party all of the bunch *came*.

Superficially, these two sentences differ in their surface structures only as far as the position of *came* is concerned, but the question arises whether it is possible to say that they have the same semantic structures, that is that they have absolutely the same meaning.[5] The answer is No. Although both these sentences consist of basically the same concepts, which are roughly as follows:

A
— there was a party,
— it was arranged by a woman,
— there was a bunch to which she belonged,
— all members of the bunch turned out at the party,

it seems that the semantic structure of sentence 8) contains information not shared by sentence 7) and not included in the complex of concepts A). Sentence 7) simply asserts a certain fact and it includes the whole complex A) of semantic concepts, while sentence 8) contains additionally the following elements:

I. In the surface structure the sentence stress falls on the item the ***bunch*** and a different intonation pattern occurs whose center is also in the same item. It might be claimed, it seems, that surface phenomena are connected with semantic differences, that is, with some characteristics in the semantic representation which are in one way or another "visualised" in the surface structure. The intonation and accentual patterns of sentence 7) cannot be applied with positive results (that is, they do not result in an acceptable sentence) to sentence 8) which possesses its own patterns existing in the semantic representation. This, perhaps, might be the reason for which we cannot change the pattern which is a part of the semantic representation of a given sentence and thus an element of meaning itself.

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[4] McCawley (1970b: 227): "...semantic representation must be "syntactic" in form that is semantic representation must at least indicate the immediate constituent structure of the semantic elements and show subordination and coordination between them; the same "syntax" governs the combination of elements of meaning and individual lexical items as the entire sentence; different meaning can consist of the same semantic elements combined in different ways".

[5] It is assumed here that semantic structure is not limited to meaning of constituents, but that it rather includes other elements such as presuppositions. It follows, then, that if the semantic structure of a sentence is claimed to be changed, not necessarily all these elements have to be different, but it might be only one of them which is changed.

II. The semantic representation of sentence 8) contains an additional semantic concept suggesting surprise or a similar feeling, which is not expressed directly in the surface structure, but it must be present in the semantic representation, because we can lexicalize this feeling by the item *even* or *also*. In fact, it is the whole semantic concept which is connected with the change of word-order and of intonation patterns:

B) *It should be stressed that even this particular group came...*

Here a certain contrast is intuitively deduced:

...and not only those who usually came there[6]

It might be claimed that the sentence consisting of the semantic concepts grouped under the heading A) has in fact two different semantic structures. The fact that sentences 7) and 8) differ in respect to their surface structures, stress and intonation patterns is the result of different semantic structures which are inseparably connected with particular sentences.

Polish examples seem to support the above analysis; the same kinds of relations hold between the order of elements and semantic representation; moreover semantic concepts seem to be configurated in a specific order already in semantic representation, as the order of the elements is not a superficial matter but is connected with meaning, e. g.:

9) Na imieniny przyszła cała paczka (To the party came all of the bunch).

10) Na imieniny cała paczka przyszła (To the party all of the bunch came).

An immediate question arises as to the nature of syntactic relations in semantic representation. Let us consider the following examples:

11) Na imieniny przyszli wszyscy zaproszeni (To the party came all who were invited)

12) Na imieniny wszyscy zaproszeni przyszli (To the party all who were invited came)

13) Wszyscy zaproszeni przyszli na imieniny (All who were invited came to the party)

14) Przyszli wszyscy zaproszeni na imieniny (Came all who were invited to the party)

Sentences 11) and 12) (sentences 13) and 14) can be ignored at present since the position of the place adjunct is of no interest here) are similar in some respects:

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[6] It should be remarked at this point that there is a danger of overstepping the boundaries between what is language and what is not. There are contexts in which a simple sentence: *I like it here* may mean many different things, but those meanings, it seems, do not constitute the semantic representation of this sentence but are imposed by extralinguistic factors. However, it does not seem to be the case with our examples.

a) their surface structures differ only as far as the position of the predicate is concerned,

b) the semantic concepts of which they are built up are the same and the relations between the roles are the same,[7]

still their meanings are different (this difference being revealed by means of stress and intonation patterns) so their semantic representations must also differ in some respects.

The question is, then, in which part of the semantic representation the differences arise and what factors are responsible for it. At present this problem cannot be solved ultimately because of the lack of extensive studies on the subject; however, one of the hypotheses might be that such sentences, seemingly the same, have different semantic representations with a different ordering of constituents.

DELETION OF CONSTITUENTS AND ITS SIGNIFICANCE FOR THE PROBLEM OF WORD ORDER

While trying to find a possible answer to the question stated above, one may find it interesting to consider sentences in which some elements of the surface structure have been deleted. There are sentences which do not have subjects or predicates in their surface structures; this does not mean, however, that those elements do not exist in the semantic structures of the sentences (in fact, they must exist and the argument is very simple — those elements are understood even if superficially they are not there). Although they do not appear in the surface structure of a sentence, they are felt to be in specific places in order that the proper meaning be obtained. It might suggest two things:

a) such a sentence has at least two semantic structures,

b) those structures differ because of the place of a given constituent or of a suggestion as to the position of this element,

Let us consider the following examples:

15) Wysłał tam swoich uczniów. Zawsze a) oni wracali b) oni zniechęceni. The sentence with a) possibility requires different presuppositions than the other one (which represents the basic word order in this case).[8] Sentence 15

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[7] While referring to the elements of semantic representation we will use the terminology introduced by Langendoen (1970), namely the concept of roles, which are much more appropriate for expressing semantic relations than older "surface" categories of subject and predicate.

[8] We accept here the semantic definition of word order put forth by Kiefer (1970: 140): "A word order is referred to as basic if it can stand without any presuppositions as to what should be considered as being already known". This definition seems to be correct, as it does not refer to any absolute norm, that is independently of any context. It can

a) requires a preceding context and the presupposition that *oni* must be emphatic and contrasted with another pronoun, e. g.:

16) Nie Francuzi lecz Włosi śpiewali najwięcej. I zawsze *oni* wracali zniechęceni.

Oni is emphatic as it refers to the first part of the text 16) and points to one of the alternatives. Its presence requires an earlier contrast between the two possibilities: nie *Francuzi* lecz *Włosi*.

The possibility of deleting *oni* in the surface structure seems to depend only on the preceding context. The text with the deleted *oni*:

17) Nie Francuzi lecz Włosi śpiewali najwięcej. I zawsze wracali zniechęceni.

has the same meaning as 16) because of the earlier contrast which suggests the following emphatic element.

The text:

18) *Wysyłał tam swoich uczniów. Zawsze oni wracali zniechęceni.

is ungrammatical because the second part is not connected with the first one, which does not have the emphatic structure, that is, the semantic unity of the discourse is violated. We can conclude, then, that the place of the subject *oni* is closely connected with the presuppositions which, in turn, are evoked by the context and the whole semantic representation. Thus there must be two semantic structures of the sentence:

Zawsze wracali zniechęceni

which differ in word order, strictly speaking, in the position of the agent. These structures are used in accordance with the context and the presuppositions.

As far as English examples go, they were not easy to find, still the one below may illustrate the point:

19) I wonder if you can help me? Be delighted.

The possibility of deleting the agent depends mainly on the assumption that in this situation somebody has asked politely for help; then the agent which is deleted is included already in the earlier part of the discourse. If not for the previous semantic context, the sentence would have a different meaning, with a different agent understood (*you* instead of *I*).

Let us now consider some more examples of sentences in which some elements have been deleted in the surface structure; however we shall look at this problem from a slightly different point of view. The sentences are the following:

20) a) New York is cursed with foreigners. b) So are Chicago and San Francisco.

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easily be proved that in some contexts only a certain order is permissible, and the choice is by no means a stylistic matter. So it makes no sense to speak about "basic word order" without references to concrete semantic situations.

21) He was dressed as carefully as was Mary.

22) She was quietly and securely friendly; and quiet and friendly was her answer.

In the first two sentences parts of the predicates are deleted and a change in the order of elements occurs; in the third sentence there is no deletion, but the change still does occur. Let us consider sentence 20) from the point of view of the topic-comment relation and ask a question: What is the relation between the "novelty" of an element and its position in a sentence?

When part b) of S 20 stands by itself it has no meaning and one cannot change the position of "to be", unless the deep structure concept denoting action occurs (still, if there is no additional context, there is no possibility of guessing what this predicate is and practically an unlimited number of possibilities exists). Part b of the text 20 means, more or less:

23) Chicago and S. Francisco *are cursed with foreigners, analogically to New York.*

The underlined part belongs semantically to a), it is a topic which can be (abstractly, of course) taken from a) and inserted into sentence b); next a transformation deletes this whole fragment in the surface structure. Moreover, the order of elements changes in accordance with the topic-comment relation; the element known from the preceding context, semantically less relevant (as it repeats an already known information) appears before the semantically new element "Chicago and S. Francisco". It follows, that the word order of 20) is neither emphatic nor unusual in any sense but is connected with the preceding semantic context and thus is semantically conditioned.[9]

In this context it is the only possible order, which, moreover, cannot be changed, because then semantic relations holding for that sentence are broken and thus the whole semantic representation is changed. The surface word order, traditionally accepted as "basic" or "normal", that is Subject-Predicate, results from a different semantic structure, perhaps an emphatic one:

...so Chicago and S. Francisco are...

Sentence 21):

21) He was dressed as carefully as was Mary.

means: He was dressed carefully and Mary was dressed carefully, too, and he was dressed not less carefully than she was. Another surface form is also possible:

24) He was dressed as carefully as Mary.

in which the whole topic is deleted (...was dressed carefully...) but still the sentence preserves its meaning as in the semantic representation the whole idea of being dressed as carefully as somebody else is referred to Mary.

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[9] If we treat part b) as a separate sentence we cannot consider the order in it as basic, but if text 20) is treated as one semantic unit (and this claim seems to be justified as the two parts in fact constitute a discourse) our claim to treat this specific word order as basic seems reasonable.

It can be noticed that the optional transformation deleting redundant elements has various scopes of applicability up to the point, of course, that it might not be applied at all — and the order remains the same. This would suggest that the surface word order does not depend upon the presence of some surface elements, but rather on the whole semantic structure. The semantic structure includes many semantic concepts and even whole groups of concepts, which never appear as lexical items in the surface structure, so they must be, in one way or another, deleted already in the semantic representation, at one of the stages of the semantic derivation. Still those semantic constituents exercise an important influence on the processes of shaping surface structures. In the process of lexicalization of semantic concepts the deep semantic relations are being taken into account and thus these relations are reflected in the surface structure.

Although the nature of the transformations deleting semantic constituents is still unclear, it might be revealing to consider in more details the conditions on which depend the possibilities of deleting elements in the surface structure. It will be seen in the examples quoted below that the semantic relations and the semantic structures of the sentences are different when the surface subject is a pronoun and when it is a noun. This problem belongs to rather doubtful issues, still it might throw some new light on the question raised, so we will try at least to point to some possible solution.

For the time being we will restrict our observations to the surface structure only as at present we are far from being able to explain the nature of this phenomenon. However, this analysis might be useful in the inquiry into the nature of the semantic representation. Let us consider the following sets of examples:

A. a) Teraz drżała ona niby pod ciosami.

A. b) Było to cierpienie, które wczoraj jego dręczyło. Teraz ona drżała.

A'. a) Teraz drżała dziewczyna niby pod ciosami.

Było to cierpienie, które wczoraj jego dręczyło. Teraz dziewczyna drżała.

The two sets presented above differ in their surface forms as far as the presence of some lexical items is concerned, namely the lexical item *dziewczyna* from set A' corresponds to the lexical item *ona* in set A. It does not seem very probable that the semantic differences between the two sets are the result of the differences of the overt grammatical categories. To find a possible solution we will try to analyse in some detail the semantic structures of those four sentences and an attempt will be undertaken to see the differences of meaning and, perhaps, some transformations which may apply.

A. a) *Teraz drżała ona niby pod ciosami.*

This sentence states that a woman was trembling as if someone was beating her. *Ona* can be deleted in the surface structure without any change of meaning. What is important semantically is the concept of trembling *drżała* (which also receives the primary stress and the center of intonation).

A. b) *Było to cierpienie, które wczoraj jego dręczyło.*
Teraz ona drżała.

In this sentence *ona* seems to be the crucial concept of the sentence; what is more, it is clearly contrasted with the earlier context — ona must be emphatic, so the item ona receives the feature [+Emph] and the intonation pattern of the kind on̂a.

There is one more possibility as far as this sentence is concerned:

A. $b)_1$ *Teraz ona drżała.*

The surface structure is seemingly the same, that is, the surface order of the elements is the same, still the semantic representation might be different than that of A. b), as the lexical item *ona* does not have the feature [+Emph] and in this case the whole sentence cannot be used in the context A. b). Sentence A. $b)_1$ requires a different context, possesses a different intonation pattesn and shares different presuppositions, so in general it has a different semantic representation. (however, the surface order of elements is the same as previously — which means that exactly the same order of the same constituents may still result in different meanings, that is such sentences must have different semantic structures).[10]

Sentence A. $b)_1$ means: *Teraz ona drżała* as if we understood, without expressing (it overtly: *A przedtem to nawet o tym nie myślała*, or anything of this sort; in this sentence *drżała* is a relevant element, while *ona* can be deleted without any change of meaning. We can notice, however, that the sentence:

Teraz drżała ona...

with the item *ona* in a different place in the surface structure can never have the same meaning as A. $b)_1$.

However, sentence A. $b)_1$ requires a special context without which it does not have the meaning described above. It seems that the examples from set A′ do not have the same meanings as those from set A, at least such is the case with A. a) whose meaning is different than that of A. a). An attempt to explain, at least partially, this phenomenon, will be undertaken in the following section; still the problem needs further analysis. Let us analyze in some detail the following two sentences:

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[10] This problem is only indirectly connected with the question of word order; it is, however, important, as it points to a more general problem: Is it convenient to claim in order to account for the differences of meaning, that sentences consisting of the same semantic elements have different semantic structures? If we assume that the concept of semantic structure, briefly discussed in note 5) is right, then such a solution is justified. The question remains open.

25) Parę dni później był świadkiem rozmowy.

26) Parę dni później mężczyzna był świadkiem rozmowy.

In sentence 25 *on* is deleted, still if it does appear in the surface structure, it appears in a definite place, after the predicate *był*:

27) Parę dni później był on świadkiem rozmowy.

This order of constituents seems to be the most natural one and the semantic structure of sentence 27) equals that of 25).

If *on* appears before *był* in the surface structure, there are two possibilities:

28 a) $\widehat{\text{On}}$ był świadkiem rozmowy.

On $\widehat{\text{był}}$ świadkiem rozmowy.

Sentences 28 a) and 28 b) require additional information in the semantic representation, so neither 28 a) nor b) represents the basic order of constituents, they need presuppositions which are the following:

28 a): somebody, a male, was a witness of a conversation, the focus falls upon the item *on* as the agent is important here,
also the emphasis is centered on the agent and this suggests a contrast with another agent (not specified at all), which might have exercised this action;

28 b): the conversation has taken place and there is a doubt whether the person in question has heard this conversation,
in this case the action is emphasized;

It is also possible that the whole semantic context decides and ascribes the feature [+Emph] to certain contexts.[11] It seems that the variant 27 b) is already included in 25), so sentence 25) is ambiguous and possesses two semantic structures; in both cases the deletion takes place. Only in sentence 28 a) there is no possibility of deletion as the agent is marked with the feature [+Emph].

In sentence 26) the agent is more specified, as it possesses the features $\begin{bmatrix} +\text{male} \\ +\text{grown up} \end{bmatrix}$; then deletion cannot take place as it would cause the change of the features of the agent and it would widen the meaning of the agent. The deletion can take place if a role is not too definite, that is, it is general enough to be included in the semantic context. The role cannot be deleted if there is something specific about it, which needs to be expressed overtly for the sentence to be properly understood (cf. Langendoen 1970 : 79 - 81).[12]

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[11] This suggests rather an important generalization as to the nature of semantic representation which does not consist of separate and independent of each other constituents, but is rather a complex system in which elements interplay and influence each other; e.g. emphasis is ascribed on the basis of such elements as presuppositions, context and order.

[12] Langendoen (1970) quotes interesting examples illustrating the possibilities of role deletion in surface structure:

This proposal needs some further support, but at present it appears to be one of the possible solutions which try to find the deeper, semantic justifications for word-order changes, as the "surface" solutions, do not seem satisfactory.

CONNECTIONS BETWEEN TYPES OF LEXICAL ITEMS AND WORD-ORDER CHANGES

While considering the problem of word-order in connection with different semantic factors, it might be interesting to analyse the nature of lexical items denoting actions. The following examples are chosen at random from literary works:

I. 1) To her party *came* all of the bunch.
2) From his house *had come* two chairs.
3) From the house *came* the music.
4) At the pillow *were* two sleepy heads.
5) But in him *was* some genius of love.
6) On the seat *was* a bunch of flowers.
7) On the wall she ***had pinned up*** photos.
8) On the other side *lived* Howard.
9) Over a bridge *flew* a limousine.
10) Yet on the phone they *said*...

In the examples quoted above the differences are noticeable in the surface ordering of elements. It is characteristic of sentences in set I that the differences in the surface ordering appear in the same or similar kinds of lexical environment (e. g. the same constructions appear, such as sentences starting with a specification of place). The difference consists in the fact that the subject either precedes or follows the verb.

The difference in the position of verbs here is not a stylistic matter or the question of the optional change of the order of surface constituents. It seems to be connected in a way with the kinds of constituents of which a given semantic structure consists. In set I the verbs:

II. *to be, to come, to go, to flee, to appear, to live*... appear before the nouns, unless the nouns are in the initial position. Then the surface word is most natural, and also it is basic (in semantic categories), that is, no additional presuppositions or contexts are needed for the full understanding of a given sentence.

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a) *He died* (it is understood that "He died a death")

b) He died a cruel death (here death cannot be deleted as it has something specific about it which is not included in *to die*).

However, with the other kinds of verbs the most natural order of constituents is different. The criteria, then, do not depend upon the surface grammatical categories, as the order of elements, conventionally accepted as basic, might not be basic in a given semantic context. The so-called "inverted" word-order[13] appears with certain verbs only, while with the others only the subject-predicate order is acceptable. It is too regular a phenomenon to be a mere chance, so we will try to see whether these verbs, which allow for the different word order than the conventionally accepted one, have anything in common. Let us enumerate these verbs once again:

III. a) *to be, to live, to stand...*

b) *to come, to flee, to appear, to go...*

The verbs from group a) share the following semantic characteristics:

$$\begin{bmatrix}\text{to remain somewhere without changing state or position} \\ \text{to stay in one place,}\end{bmatrix}$$

That is, they all include the notion *to be* and possess the following semantic features:

$$\begin{bmatrix}-\text{motion} \\ +\text{to be} \\ +\text{duration in time}\end{bmatrix}$$

The verbs from group b) include the notion of movement from place to place, of changing the state: from the state 1) to be here (or to be something), to the state 2) to be there (or to be someting else). This group also possesses the notion *to be* (which is not defined further being a semantic primitive).

Thus the semantic features of group b) are the following:

$$\begin{bmatrix}+\text{motion} \\ +\text{to be} \\ +\text{duration in time}\end{bmatrix}$$

In group III b) the final state may, but does not have to be included in the definition, for example, the concept *to go* does not have this feature.

Thus both group III a) and b) have the semantic structure of the following kind:

$$\begin{bmatrix}+\text{to be} \\ \pm\text{duration in time} \\ \pm\text{motion}\end{bmatrix}$$

It should also be noticed that the order of elements depends as well on the kind of agent — whether it is an unspecified agent (expressed overtly by a pronoun) or a specified one (for example, a noun).

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[13] It is possible to accept the term "inverted" word order only under the assumption that we take into account not a strict norm, established on the basis of statistical considerations and applied mechanically to all sentences, but the whole semantic context on which the "basicness" of a given order depends.

Compare the following examples:

28) Over a bridge flew a car.

vs

29) Over a bridge they flew.

or[14]

30) On a hill stood a castle.

vs

31) On a hill they stood.

It might be suggested that if there is a close semantic relation between the agent and the action, the constituent denoting action may precede the constituent denoting agent; however, this statement is not sufficiently justified and supported by examples. At present, though, no other semantic explanation is available.

In the present paper an attempt has been undertaken to prove the semantic nature of the phenomenon of word order in English and Polish, the research being limited to the relations obtaining between subject and predicate in these two languages. The main claim was that, in spite of commonly accepted views,[15] word order is not a stylistic problem or a matter of optional choices, but that it is a semantic phenomenon, closely connected with other elements of the semantic representation or elements related to it, such as presuppositions, emphasis or intonation. Although only certain aspects of the problem have been considered in greater detail, while others have been merely touched upon, we were trying to show on this limited material in what way word order changes are related with and conditioned by the whole semantic representation. That is, word-order, being of semantic nature itself, is not isolated but is interwoven with other semantic factors both in English and in Polish.

It also seems that the problem of word-order needs much attention and is worth analyzing in detail, because all the considerations and conclusions have important theoretical implications, concerning the nature of the semantic representation, kinds of transformations operating there and conditions under which they are applicable, the nature of lexical items, semantic concepts and the interplay between them.

As far as the semantic representation is concerned, it seems justified to claim that it is a complex whole consisting of semantic concepts, which are in syntactic relations to each other (however, the precise nature of these relations has not been yet investigated) and to which further characteristics, such as emphasis or intonation pattern are ascribed; still this ascription does not have an absolute character, that is it does not work independently of any other factors. Just the opposite seems to be true — those semantic characteristics are ascribed on the basis of the whole semantic context. That is what is meant by the claim that all factors in the semantic representation operate together, for example word-order changes are connected with many elements of the semantic representation; the precise nature of these connections is still unclear.

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[14] Quirk (1972) quotes similar examples but he does not attempt to explain them consistently.

[15] e.g. Jespersen (1933), Zandvoort (1966), Szober (1967), Klemensiewicz (1949).

Out of necessity many problems have been only signalled and not discussed at length, although they undoubtedly need a more detailed analysis and more attention than has been devoted to them in the present paper.

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SEMANTIC CONSIDERATIONS OF *GET* AND SOME OF ITS BASIC POLISH EQUIVALENTS

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The English verb GET has attracted the attention of many grammarians and textbook writers for at least two reasons: its polysemic variety and its increasing usage. However, very few linguists, if any, have adequately described all its various meanings or functions.

Most have emphasized its feature as an auxiliary in dynamic passive structures.

Thus Nelson Francis writes in 1958:

"Another passive, formed with GET as auxiliary and the past participle, seems to be increasing in frequency, though grammarians are at present not agreed as to its status. [...] examples:

get — PASSIVE

he gets killed

the house got built

the work has got done" (Francis 1958 : 335)

Fourteen years later, we read in *A grammar of contemporary English* (Quirk et al 1972: 802 - 803):

"The passive auxiliary is normally BE. Its only serious contender is GET, which however is usually restricted to constructions without an expressed animate agent [as in]

The boy got hurt on his way from work

[...] GET is much more common as a 'resulting copula' in sentences which look superficially like the passive but cannot have an agent (...).

Your argument gets a bit confused here.

Huddleston (1971 : 103) also views GET as a dynamic passive auxiliary: "... I would thus treat *it got established* as an actional passive, even though *it became established* is statal (with a dynamic copula verb)".

Historically, the first meaning of GET was probably the converse of GIVE.

This connotation of GET is offered in *Listen and learn* (Smólska et al. 1969 : 36) with the following example:

Betty has got a new clock.

The same concept of possession is viewed as essentially inceptive in Leech (1970 : 157) where it is understood as "come into possession of":

Fred got some golf-clubs

would mean Fred has some golf-clubs, which he came to have and would be expressed in Pidgin as

Fred became he have golf-clubs.

The same dynamic feature is mentioned in *A grammar of contemporary English* (Quirk et al 1972 : 115) which says that *get, got, gotten* (American English) is used for *acquire, cause, come,* and in Lyons (1971 : 374) where

I am getting shaved

is marked as being ambiguous. As a matter of fact, depending on whether the subject is taken as 'agentive' or 'non-agentive', it may be paraphrased

by *I am shaving* (myself)

or *I am being shaved* (by someone)

The agentive meaning of this word is probably clearer in the active voice:

He got them to repair the bridge

for *He got the bridge repaired* (by them).

However, the distinction between 'agentive' and 'non-agentive' expressions using GET is not always very sharp. (Huddleston 1971:165 - 166).

This confusion seems to be one of the reasons why bilingual English-Polish dictionaries usually do not show clearly the basic meanings of GET. Instead of providing some general semantic features, they list various synonymous words or expressions often grouping together such different meanings as 'to cause someone to do something' (*to get something done by somebody*), and 'to do something' or 'to have something done' (*to get one's arm broken*) (Stanisławski 1964 : 344); 'to come into possession of' (*to acquire, receive, purchase, obtain,* etc...) with 'to cause to have or become' (*get with child*), and 'to cause to be' (*to get something ready*). (Bulas and Whitfield 1972 : 412)

Besides the confusion due to the apparent mixture of meanings, these classifications based on a structural analysis of English seem to produce at least three other major problems.

1. They require unduly long listings, which makes their deciphering a chore lasting on an average twenty times longer than absolutely necessary; *i.e.* about fiteen minutes instead of 45 seconds spent on some polyvalent words. As a matter of fact, Stanisławski's dictionary needs over 4 columns of print for GET in contrast with only a few lines for most other lexical items. *Put, run* and *take* are given even more space. The Kościuszko dictionary supplies 19 basic definitions and a multitude of Polish equivalents of two-word verbs using GET.

2. They can't be exhaustive because new sentences can always be produced with new words in similar surface structures. On the other hand, superfluous repetitions and duplications are almost unavoidable and confusing to the dictionary user who is then at a loss because he has no dependable guide as to which meaning he should choose. For instance, everyone can read in the *Kościuszko Foundation dictionary* under the first definition: 'To get something ready' = 'Przygotować coś' and again under the seventh one: 'get' = 'przygotowywać'. What is the semantic difference between the two listings since no structure is provided for the seventh definition? As it is impossible to predict when GET must be translated perfectively or imperfectively, these two definitions should probably be somehow combined with a third one found under 18: 'get ready' = 'Przygotować się'.

3. They sometimes are forced to impose apparently different Polish meanings on English utterances using identical structures and expressing identical ideas.

To get something done.
= Postarać się o to, żeby coś zostało zrobione.
To get something done by somebody.
= Postarać się o to, żeby ktoś coś zrobił.
(Stanisławski 1964 : 344)

The authors of monolingual dictionaries are usually much freer from the interferences caused by another language and depend much less on structure for their definitions. Because they must paraphrase rather than translate, they utilize more efficiently each word's powers of extension (different meaning areas) and inclusion (number of synonyms it is susceptible to be substituted for). Consequently, the listings of such widely polysemic and polyvalent words like GET are not much longer than the average. However, they still fail in general to provide a clear picture of the actual coverage of each basic meaning and its subcategories. Both the British *Hornby's dictionary* (1963 edition) and the *American college dictionary* (Barnhart 1957) offer 'to obtain' as the first meaning, which is historically justified and also sustained by a limited frequency count I recently performed with my fourth-year students at the Jagellonian University. Both, however, fail to give a clear picture of the complex net of semantic subcategoris of this fundamental meaning. They also fail to stress the relationship between the figurative meanings of *eat, learn* and the literal meaning of *obtain, acquire* ('come into possession of, come to have — food, knowledge').

This relationship is particularly important in the case of the so-called two-word verbs like *get at, get in*, etc... Neither to they stress enough the importance of GET as a dynamic auxiliary, so frequently used to form the passive voice. However, in the newest (1974) edition of his dictionary, Hornby lists this latter meaning under the first entry. In a private conversation, he told me that this new listing order is determined by recent computer counts in spoken and written British English corpora. Even the unabridged Edition of the *Random house dictionary of the English Language* (Stein et al 1967: 594) is unable to free itself completely from such confusion. How clear are the semantic differences among the following entries: "6. to hear: *I didn't get your last name.* 7. to acquire a mental grasp or command of; *learn to get a lesson*... 19. 'informal'. to understand; comprehend: *I don't get the joke*"?

Authors of lists of English idiomatic expressions are generally not much more systematic in this respect, although they probably come closest to a functional semantic classification. The purpose of this paper is to establish such a classification by determining the primary semantic features of GET in various possible sentences and regrouping the synonymous verbs which may substitute for GET in those sentences. It should then be possible to use the same classification for Polish and thus facilitate the translation of GET into Polish or even vice-versa. On the basis of the definitions, paraphrases, translations and sample sentences provided in the books mentioned above, I have established an eight-point classification which was later confirmed through the analysis of 320 additional sentences found in writings about various subjects on different levels. These are the eight different categories: *get* (converse of *give*), *become*, *have*, *be*, *do* (these five categories usually contain only one animate NP — agentive or experiencer — in the underlying or surface structures), *cause to have*, *cause to be*, *cause to do* (these last three categories being causative normally involve two or three animate NP performing various functions. All these categories but two (*be*, *have*) have in common the semantic feature [+dynamic]; therefore, the following table may be drawn to represent them together with their Polish equivalents.

This table will serve as a basis for our description of the various meanings and usages of GET and later it will be revised to include any important semantic feature common to GET and its basic Polish equivalents.

1. GET = come to have

Probably the most frequently used, this was historically the first meaning. Originally *get* and *give* were converse expressions as it is quite clear in the following pair of utterances:

John gives a book to Paul j. →g (ø : b). p
Paul gets a book from John p. →g (ø : b). j

The second utterance is a mirror image of the first one, and expresses actively the direction of the action, which otherwise would be conveyed by the passive.

Paul is given a book by John. p. ←g (ø : b). j

There are many ways to come into possession of something, and there are many things, objects, concepts and even living beings to be possessed. In other

Table 1

One ANIMATE NP	STATIVE	5 BE (być)	3 HAVE (mieć)	
	DYNAMIC	2 BECOME (zostać)	1 GET (dostać)	4 DO (działać, robić)
More than one ANIMATTE NP		7 CAUSE TO BE (spowodować, że ktoś jest)	6 CAUSE TO HAVE (spowodować, że ktoś ma)	8 CAUSE TO DO (spowodować, że ktoś działa)

words, there are many ways to get something or somebody and there are many things and beings to be gotten. It is thus natural that descriptive languages like Polish should try to distinguish as many componential features as possible. This explanations why under the first definition of GET we find fourteen different Polish verbs in Stanisławski's dictionary and thirteen in the *Kościuszko Foundation dictionary*. Actually some of these translations illustrate concepts which do not mean 'to come into possession of', for instance *to get a doctor* (Stanisławski) fits better under 'to cause a doctor to come or to be present at the home of the bedridden person'.

Most of the other translations provided in these two dictionaries represent the basic meaning of 'to come to have'. This is the underlying denotation which the translator must take into consideration before looking for any connotation or any of the following additional componential features.

1.1. 'to come to have' implying an effort on the part of the receiver.

Quite often, if not in most cases, the feature effort is apparent only in the context, under the guise of an adverb like *finally*, or *lengthy*.

(obtain) *They still get* (obtain) *coal out of the old mine.*
= (wydobywać) Jeszcze wydobywają węgiel ze starej kopalni.
(acquire) *After lengthy negotations, he got* (*acquired*) *the bus company.*
= (nabyć) Po długich negocjacjach nabył przedsiębiorstwo autobusowe.

(conquer) *Hitler never got* (conquered) *Moscow.*
= (zdobyć) Hitler nigdy nie zdobył Moskwy.
(procure) *He finally got* (procured) *enough evidence to impeach the president.*
= (wystarać się) Nareszcie wystarał się o dość dowodów, aby postawić prezydenta w stan oskarżenia.
(catch) *The police got* (caught) *the kidnapper.*
= (złapać) Policja złapała kidnapera.
(secure) *The enemy got* (secured) *some of the secret material.*
= (zapewnić sobie) Wróg zapewnił sobie pewne tajne dokumenty. Also in this group are expressions like:

She got religion. (She acquired a religion through diligent efforts).
= Nawróciła się. (Nabyła religię poprzez pilne wysiłki).
He finally got (caught) *Radio Belgrade.*
= Nareszcie złapał w radio stację Belgrad.
How does he get (earn) *his living?*
= Jak on zarabia na swoje utrzymanie?
He got (bought himself) *a 1975 Cadillac for 3.000 dollars.*
= Kupił sobie Cadillaca 1975 za 3,000 dolarów.

as well as many others whenever GET is [+come to have, +auctorial (the receiver is the instigator or initiator) +effort]. In all the Polish sentences above *dostać* could be used and understood.

1.2. 'to come to have' without any deliberate or special effort on the part of the receiver. Again, the importance of the context is not to be underestimated in English as the word GET is so ambiguous by itself. Polish, however, uses words with more restricted semantic areas and showing this [-effort] feature with much more precision.

(find) *I got* (found) *the answer just by accident.*
= (znaleźć) Znalazłem odpowiedź przez przypadek.
(win) *She got* (won) *the big prize.*
= (wygrać) Ona wygrała wielką nagrodę.
(gain) *We got* (gained) *the information without even asking for it.*
= (uzyskać) Uzyskaliśmy informację nie prosząc nawet o nią.

Also in this group are expressions like:

He really got it. (He received a good lesson, a beating, etc.)
= Naprawdę dostał za swoje.
I got (received) *a threatening letter from my landlady.*
Otrzymałem od gospodyni list z pogróżkami.
(catch) *She got* (caught) *the flu.*
= (złapać) Złapała grypę.

as well as any utterance with GET [+come to have, ±auctorial — effort].

Some of the most interesting, expressions are those using GET with the meaning of 'eat', 'drink', 'swallow', as historically some of these verbs were formed in some languages as compounds equivalent to English 'get down' or 'come to have inside'. *Beget* and *forget* are remnants of the group of compound verbs formed with the base GET. The first one means 'to come to have offspring' (porodzić), the second 'to come not to have memory, knowledge, or understanding' (zapomnieć). It belongs more frequently to the following category.

Just as for 1.1. in all the Polish sentences above *dostać* could be used.

1.3. 'to come to have abstract notions'

with or without a special effort on the part of the receiver.

(grasp) *Now I get* (grasp) *the concept of Realpolitik.*

= (pojąć) Teraz pojmuję koncepcję Realpolityki.

(apprehend) *He gets* (apprehends) *all types of art.*

= (percepować) Percepuje (chwyta sens) wszystkie rodzaje sztuki.

(learn) *He got* (learned) *this poem by heart.*

= (nauczyć się) Nauczył się tego poematu na pamięć.

(understand) *Sorry, but I didn't get* (understand) *the joke.*

= (rozumieć) Przykro mi, ale nie zrozumiałem tego żartu.

Any expression containing GET [+come to have, +abstract±effort] will belong to this group. For instance, *hear* or *see* with the meaning 'understand' in:

I didn't get (hear) *his name.*

= Nie zrozumiałem (dosłyszałem) jego nazwiska.

including compound verbs like GET +noun in:

I got wind of (smelled) *the plot.*

= Wywąchałem spisek.

2. The second largest meaning area of GET, both in extension and in frequency is the resultative, dynamic, inceptive concept of 'becoming', expressing the idea of a gradual change in condition, situation or location. We find here most of the two-word verbs (GET+postposition), usually listed after the other definitions or as special idiomatic verb phrases.

2.1. 'to come to be', 'to become' with an attributive (adjective or past participle).

This is the dynamic copula mentioned by all the grammarians quoted in our introduction (Francis 1958; Quirk et al 1972; Huddleston 1971; Lyons 1971). There seem to exist two main differences in usage between GET and BECOME as dynamic copulas.

a. GET cannot be followed by a noun

*He became an engineer. *He got an engineer.*

Został inżynierem.

GET may be used here, but it must be followed by BE:

He got to be engineer.

This is more or less synonymous with

He succeeded in becoming an engineer.

As such, it parallels:

I got to know him.

Udało mi się go poznać.

We got to be friends.

Udało nam się zaprzyjaźnić.

b. The other difference is the emphasis on [+actional] for GET and [+resultative] for BECOME in passive structures.

He gets killed.

Zostaje zabity.

rather than: *He becomes killed.*

In Polish, the most general dynamic copula for this group is *zostać*; it can always be understood, although inchoatives are most often expressed with other structures.

In this group are all the expressions where GET is [+come to be, +attributive± effort].

Whenever the attribute involves an action or a function rather than a state, GET is followed by the preposition *to* and the infinitive of the verb expressing the action of function (*I got to know*). It means something like 'to succeed in doing or being', reaching the point where...

2.2. 'to come to be in a given location'

(come) *He got* (came) *here by taxi.*

= (przybyć) Przybył (przyjechał) tu taksówką.

(go) *Can you get* (go) *to California by train?*

= (dojechać) Czy możesz dostać się (dojechać) do Kalifornii pociągiem?

(reach) *Can you get to* (reach) *Warsaw before dark?*

= (osiągnąć) Czy możesz dostać się do Warszawy (osiągnąć Warszawę) przed zmierzchem?

To this group belong most two-word verbs formed with GET and a postposition.

Although they are usually listed as idiomatic, their meaning is very clearly stated by the postposition, which indicates the direction or the destination of the movement stated by GET [+become to be, +locative].

(get about) *She is already getting about* (going here and there).

= (chodzić) Już zaczyna (wszędzie) chodzić.

(get across) *They got* (swam) *across the channel safely.*

= (przepłynąć) Przepłynęli kanał bezpiecznie.
(get away) *The gangsters got* (ran) *away with the loot.*
= (uciec) Gangsterzy uciekli z łupem.

Polish commonly uses regular verbs of motion indicating the manner or means of locomotion in addition to the direction or estimation of the movement. *Dostać się* is the most general substitute for the verbs in this group, although it appears awkward whenever it translates two-word verbs.

2.3. 'to come to be in a given situation' — figuratively. In this group are found many two-word verbs, frequently the same as those in the preceding group. Although quite often awkward, Polish sentences in this group may use *dostać się* (with a prefix translating the English postposition).

(get away) *He was really guilty, but managed to get away* (escape) *unharmed with it.*
= (wyjść) Był naprawdę winny, ale wyszedł z tego cało.

(get forward) *I hope these boys are getting forward* (progress) *with their education.* (British only)
= (robić postępy) Mama nadzieję, że ci chłopcy robią postępy w nauce.
(get in) *A man gets* (falls) *in debt.*
= (wpadać) Mężczyzna wpada w długi.

(get on) *This man is industrious and is sure to get on* (succeed) *in the world.*
= (awansować) Ten mężczyzna jest pracowity i z pewnością będzie awansował ... i z pewnością będzie miał osiągnięcia, i z pewnością zajdzie daleko.

To this group belong all the expressions, most of them called idiomatic, with
GET=[+come to be, +locative, +figurative]
whether they contain two-word verbs, compounds of
GET+postposition, or GET+inalienable possession (part of the body)+preposition *like*:
He finally got (raised) *his head above water.*
= Nareszcie wypłynął na wierzch.
Nareszcie wynurzył głowę z wody.

Please notice here that in Polish more analytic two-word verbs (robić+noun) and verbs with foreign roots (mostly French or Latin) are found in this [+locative+figurative] area than in [—figurative] areas.

Constructions of the type *to get the upper hand* and *to get the better of* may also be interpreted as 'to overcome' (to come over or above), but they can also be viewed as 'to obtain ascendancy or superiority'. They could then fit in either group 1.1. or 2.3 and, accordingly, we would have:
Out of two rival companies, one soon gets the upper hand.

= Z dwóch rywalizujących przedsiębiorstw, jedno szybko zdobywa przewagę (przewyższa, wychodzi na lepsze).

and

Trickery in trade may for a time get the better of honesty.

= Oszustwo w handlu czasem wychodzi na lepsze niż uczciwość.

Both for 2.2 and 2.3, it nevertheless seems always possible to find a semantic equivalent for GET, which in turn facilitates the translation of the original sentence into Polish. The main reasons why I have separated the [+figurative] expressions from the other [+come to be, +locative] is their great number and the fact that they are always listed as idiomatic expressions. However, they present no particular difficulty once they are viewed as [+locative, +figurative] and the metaphor is understood.

Of course, Polish may use its own metaphors, different from those of English, but these do not concern the translation of GET and remain outside of the scope of this paper.

The historically original meaning of GET being 'to come to have', it is easy to understand why its two semantic features [+dynamic] and [+possessive] have been generalized independently and have spread into semantic areas which are only either [+dynamic] like 'come to be' or 'become' and 'change', 'act', 'do'; i.e. [+performative] or [+possessive] like 'have'. We might expect that the areas closest to the original [+dynamic, +possessive] would be invaded first. History seems to confirm this hypothesis; 'to come to be' which is [+dynamic] is either the most or second-most common meaning of GET today. Another common usage is:

3. 'to have'; i.e. [+possessive] but [—dynamic]. British seems to differ slightly from American in the structure of the expressions belonging to this group as it uses *have+get* more commonly than American which restricts it to emphatic usage (Whitford 1953:44).

Compare:

(have) *I got* (Brit: have got) *a lot of work to do.*

= (mieć) Mam dużo pracy do wykonania.

with

(have [+emphatic]) *She's really got it.*

= (mieć [+emphatic]) Ona naprawdę coś ma.

and with:

(must) *I* (have) *got to* (must) *do a lot of work.*

= (musieć) Muszę wykonać dużo pracy.

or the parallel structure mentioned in 2.1 because of its different meaning: Where (have) GET='must' or 'have the necessity', 'have the obligation'. (Leech 1970:203).

Just as for the other groups, GET=[+have (or+possessive) — dynamic (or- inceptive)] may be [±figurative].

Consider

(hold) *I* (have) *got* (hold) *you there.*

= (trzymać) Mam (trzymam) cię.

The English sentence is ambiguous in four ways as GET may be [±dynamic, +possessive, ±figurative]

Its Polish equivalent structures are ambiguous only in two ways as:

Mam (trzymam) *cię.* is [−dynamic, +possessive, ±figurative]

and *Złapałem* (dostałem) *cię.* is [+dynamic, +possessive, ±figurative]

The following expression, however, is normally [+figurative]

I have got it on my mind (the brain).

= Mam to na myśli

while

(keep) *I got* (keep) *my money in the bank.*

= (trzymać) Mam (trzymam) pieniądze w banku.

is normally [−figurative].

Compare this last structure with

I got (obtained) *my money from the bank.*

= Mam (dostałem) pieniądze z banku.

The choice of preposition following the object of GET appears very important. In this case, it changes the meaning of GET from [−dynamic] to [+dynamic] or vice versa; in other cases, it makes the sentence ungrammatical or incoherent.

**I got the dog at home by car*

but

I got the dog at home.

or

I got the dog home by car.

(*I took the dog home by car.* = 'I caused the dog to be home' by car.)

It will be useful, therefore, to consider such prepositions before attempting to ascribe any semantic feature to GET.

4. Since the feature [+dynamic] implies a change of state, condition or situation, it is inherent in [+performative] verbs whose simplest form is probably *do*. That is the third semantic area which GET has invaded.

Most often GET+Past Participle substitutes for the verb alone, especially in pseudo-intransitive expressions which are semantically reflexive:

GET+PP (DO+Infinitive) *He got dressed.* (He did dress.)

= VERB+SIĘ Ubrał się.

I am getting shaved for *I am shaving myself.*

= *Golę się* or *Golę się sam.*

GET+Adj. (MAKE+Adj.)

Why don't you get ready?
or *Why don't you make* (yourself) *ready?*
= VERB+SIĘ. Czemu nie przygotowujesz się?

However, this last structure with GET+Adj. could also be constructed as 'come to be' or 'cause yourself to be':

Why don't you become ready?
or
Why don't you cause (make) *yourself to be ready?*

It would seem that this group
GET=[+Performative, — causative] is quite restricted to total reflectives and marginally to part reflexives of the type 'get your teeth brushed', 'get your hands washed', etc.... for

Brush your teeth. Wash your hands.
= Wyczyść sobie zęby. Umyj sobie ręce.
Umyj sobie zęby szczoteczką.

5. The last non-causative semantic area of GET is apparently even more limited, probably because it has acquired the feature [+attributive] from 'come to be' or 'BECOME' and is thus twice removed from the original features of GET='come to have'.

Examples of GET =[+attributive, — dynamic]
are rare. Let us mention:

(be) *Do you get* (are you) *paid for this job?*
= (być) Czy jesteś wynagradzany za tę pracę?
Czy ci płacą za tę pracę?

GET is a statal passive here, equivalent to BE, and Polish commonly uses either a resultative:

Za tę pracę płacono mi.

or the active voice:

Płacą mi za tę pracę.

for *I get paid for this job.*

The last three semantic areas of GET are [+causative].
In addition, they are all [+dynamic].

As a matter of fact, "... in causative sentences the semantics of the contrast mutative/essive tends to become neutralized or rather, perhaps, is shifted towards the semantics of a contrast between 'focus on action'/'focus on result of action'. (Liefrink 1973:133).

6. GET='cause to have' or 'cause to come to have'.
(provide) *The harvest got* (provided) *us enough food for six months.*

= (zaopatrzyć) Żniwa zaopatrzyły nas w żywność na sześć miesięcy.

(give) *My father got* (gave) *me a new car.*

= (dać) Mój ojciec dał mi nowy samochód.

(loan) *The bank manager got* (loaned) *me 5,000 dollars on a very low interest rate.*

= (pożyczyć) Dyrektor banku pożyczył mi 5.000 dolarów na bardzo niski procent.

(sell) *My neighbor got* (sold) *me a new Cadillac for 3.000 dollars.*

= (sprzedać) Mój sąsiad sprzedał mi nowego Cadillaca za 3.000 dolarów.

We may observe that all these expressions mean 'A caused B to have **x**' and that any connotational difference is found in the circumstantial complement. Since Polish does not have a word as polysemic as GET, it uses a verb expressing very definitely the action or situation described. As an alternative, one could get by with a more general verb like: *postarać* się [+effort], *dostarczyć* (±effort] or even more general: 'A spowodować, że B ma x' not always grammatical although understandable.

In short, in this group we find all expressions in which

GET=[+causative, +possessive]

'Get a woman with child' for 'cause a woman to have a child'.

= *Zapłodnić kobietę* for *spowodować to, że kobieta ma dziecko.*

This might belong to this group too. However, it may be understood as 'cause a woman to be with child' (to be pregnant, impregnate)

= 'Spowodować to, że kobieta jest (zaszła) w ciąży'.

We might consider this as a borderline case between 'cause to have' and

7. GET='cause to be'

Again, in this group we could apply all the distinctions we made for our gro[illegible] 2 where GET='come to be'. Thus, we would have.

7.1. GET='cause to be'+attributive

(make) *She got* (made) *me nervous.*

= (basic verb) Zdenerwowała mnie.

(basic verb) *He got me scared.* (He scared me).

= (basic verb) Przestraszył mnie.

While Polish may almost always use a single verbal form for utterances containing expressions of state of mind, emotion, or feeling, English seems to fluctuate between the structure make+adjective, whenever the adjective is not derived from an active verb, and the single verbal form, in most cases when the adjective used with GET is a past participle. Notice, however, that

The police got the criminal killed. 'The police caused the criminal to be killed'.

is not synonymous with

The police killed the criminal or *The police got the criminal*. i.e. 'The police caused the criminal to be dead'.

The first sentence is in Polish:

Policja spowodowała, że kryminalista został zabity.

The second one is:

'Policja spowodowała, że kryminalista nie żyje'. Policja zabiła go.

In this sentence, only two animate beings are involved; in the former, a third agent (or instrument) is included in the action. The meaning of the verb *deaden* has become restricted to 'reduction in life' or 'sensitivity' but not 'complete loss', and its limits exclude living beings.

Other examples of GET=[+cause to be+attributive] are

(prepare) *I must get* (prepare) *dinner*. ('cause or make dinner be ready').
= (przygotować) Muszę przygotować obiad, 'postarać się, aby obiad był gotowy' and most passive utterance of the type:

(succeed) *Mary got a friend appointed to the committee*. 'Mary caused a friend to be appointed. She succeeded in having a friend appointed'.
= (udać się) Marii udało się załatwić mianowanie przyjaciela do komitetu. 'Maria postarała się, żeby jej przyjaciel został mianowany do komitetu.

Of course, these passives will be understood as 'cause to do' in their active forms, and as such we shall see them again in group 8. They do, however, belong to the present group

7.1. as long as they are [+causative, +essive, +attributive].

7.2. GET='cause to be'+locative

Two subgroups will be recognized here, depending on whether B in 'A causes B to (come to) be somewhere' is [+animate] or [—animate].

In the first subgroup, we find expressions paralleling those discussed under 2.2, with the addition of another animate NP, *A* which causes *B* '(to come to) be' somewhere.

For instance, *I got her home safely* paralleling
She got home safely and in Polish
Spowodowałem to, że dostała się do domu bezpiecznie.

We also find verbs like:

(capture) *I got* (captured) *the rat in the trap.*
'I caused the rat to remain (be) in the trap'.
= (złapać) Złapałem szczura w łapkę. 'Spowodowałem to, że szczur pozostał w łapce'. 'Przyczyniłem się do tego, że szczur pozostał w łapce'.

In the second subgroup, we have mostly

A [+animate] causes B [—animate] (to come) to be no more in Location 1 but in Location 2.

Since we have a change in location, the direction may be viewed mostly as towards A or away from A. In the first direction, the main meanings will be 'put', 'place', or 'send'; in the second direction, they will be mainly 'take' or 'bring'.

(put or place) *Get* (put or place) *this on the shelf immediately*!
= (położyć) Połóż to zaraz na półce! 'Postaraj się, żeby to było zaraz na półce!'.

(send) *Get* (send) *this off in today's mail.*
= (wysłać) Wyślij to z dzisiejszą korespondencją.
Postaraj się, aby to odeszło z dzisiejszą korespondencią.

(bring) *Please, get* (bring) *me a pen*!
= (przynieść) Proszę, przynieś mi pióro. 'Postaraj się, aby pióro było tutaj'.

(take) *Get* (take) *your books and come along.*
= (zabrać) Zabierz swoje książki i chodź.

Notice that quite often prepositions follow GET and indicate the direction of the movement (or change of location).

(get across) *He could not get across* (transfer) *to the group what he meant.*
= (przekazać) Nie mógł przekazać grupie swojej myśli.

Notice also that one can put, place, bring, send or take an animate being in English, and that our two subgroups are not very clearly distinct.

They got him across the border safely.
Przedostali (przeprowadzili) go przez granicę bezpiecznie.

However, in Polish, the distinction is made more often and indicated in the choice of the verb in the surface structure.

In most cases where B is [+animate], a verb built on the base 'prowadzić'='lead' is used.

To simplify the matter in this study, we shall state that in group 7.2. belong all the utterances in which

GET=[+causative, +essive, +locative]

7.3. This group corresponds to 2.3.

The basic semantic features are [+causative, +essive, +locative, +figurative].

(put) *They got* (put) *me into trouble.* ('They caused me to be in trouble').

= (wpakować) Wpakowali mnię w kabałę. 'Spowodowali to, że jestem w kabale'.

(overcome) *The passion will get* (overcome) *him.* 'The passion will cause him to be under'.
= (opanować) Opanuje go namiętność. 'Jego namiętność spowoduje to, że się jej podda'.
(take) *What has got him?* 'What has seized him?'
= (brać) Co go bierze? 'Co powoduje że jest taki zmieniony?'

The last group is

8. GET='cause to do'

This causative may range from a very strong 'force someone to do something' to a very mild 'convince (or induce) someone to do something'.

The normal situation is that both A and B are animate in 'A causes B to do something'.

We find here the utterance already discussed under 7.1. of the type:

Mary got someone to appoint a friend to the Committee.
= Maria postarała się, żeby mianowano przyjaciela do komitetu.

Similar in structure and in meaning are:

(force) *He got his order obeyed.* ('he caused B to obey his order'.)
= (wymusić) Wymusił posłuch dla swojego rozkazu. 'Zmusił B, żeby posłuchał jego rozkazu'.
(persuade) *I am getting shaved.* 'I persuade (cause) B to shave me'.
= (namówić) Daję się golić. 'Namawiam B, aby mnie ogolił'.

When the identity of B is known or should be known, two other structures may be used in English:

She got him working (intransitive); and *she got him to wash the dishes.*
= *Zmusiła go do pracy,* and *Zmusiła go do mycia naczyń.*

Some related meanings of GET='cause to do'
are:

(order) *I got* (ordered) *it done.* ('I caused B to do it').
= (kazać) Kazałem to zrobić. 'Postarałem się, żeby to było zrobione'.
or when B is known: 'Zmusiłem B do zrobienia tego'.
(prevail on) *Please, get him to speak on politics.*
= (nakłonić) Proszę, nakłoń go (postaraj się), aby mówił o polityce.
(bribe) *He got me to give him information by playing me money.* He bribed me to give him information.
= (przekupić) Przekupił mnie, (postarał się), abym udzielił mu informacji.

In marginal cases, B may be inanimate, which reminds us of the old Fillmorian discussion about Agentive and Instrumental.

Daniel got the fire to burn in the furnace,
'Daniel caused the fire to burn in the furnace'.

= Daniel zapalił ogień w piecu.
'Daniel postarał się, aby w piecu palił się ogień'.

In short, this group is characterized by GET — [+causative, +performative] A causes B to perform; A and B may be identical, as in:

I got (forced) *myself to write this article.*
= Zmusiłem się do napisania tego artykułu. 'Postarałem się napisać ten artykuł.'

One interesting usage of GET in this group is the benefactive in sentences like:

I got myself hired. 'I caused myself to be hired'. for 'I caused B to hire me'
= Wynająłem się. 'Postarałem się, aby wynajęto mnie'. for 'Postarałem się, aby B wynajął mnie'.

Depending on whether the emphasis is placed on I or B, these sentences may be classified in this group or in 7.1.

Again, we may observe here that the same objective reality may be represented in at least two subjective prelinguistic semantic interpretations, in turn expressed in different corresponding linguistic structures, even within the same language.

In conclusion, we have seen how semantics and componential features may help in the handling of a polysemic and polyvalent word like GET which presents so many difficulties to speakers of both English and other languages. Lengthy lists of idiomatic expressions in monolingual dictionaries, or of structurally based definitions, in bilingual dictionaries, may be replaced with or organized and classified in a few semantic areas characterized by definite componential features recurrent in the various sentences using the word or expression analyzed and described.

We have seen that a historical study of the semantic evolution, expansion or reduction, may be helpful in defining the limits of the semantic areas of a word like GET.

The various basic meanings of GET, as suggested in Table 1, have led us to the discovery of all its semantic areas, which are summarized below in Tables 2 and 3.

Table 2

	ESSIVE		POSSESSIVE		PERFORMATIVE
STATIVE	Attributive 5 BE	Locative [±figurative]	3 HAVE [±emphatic] hold, keep	[+abstract] must	
DYNAMIC	2 (come to be) BECOME [±inchoative] succeed	come go reach (arrive) 2-word verbs	(come to have) GET obtain acquire find conquer win procure gain secure (catch) buy catch beget	1 grasp apprehend understand learn forget	4 DO $\left(GET+\begin{Bmatrix}\text{Adjective}\\ \text{Past Participle}\end{Bmatrix}\right)$ pseudo-reflexives get shaved get ready, etc...
	CAUSE TO BE make kill prepare 7	capture take bring put place send overcome	CAUSE TO HAVE make, provide give sell loan 6	cause	CAUSE TO DO make prevail on force induce dispose 8

Table 3

	ESSIVE		POSSESSIVE		PERFORMATIVE
STATIVE	5 Attributive BYĆ	Locative [±figurative]	3 MIEĆ trzymać	[+abstract] musieć	
DYNAMIC	2 ZOSTAĆ [±inchoative] udać się	DOSTAĆ SIĘ osiągnąć przybyć dotrzeć przyjść zajść przyjechać zajechać chodzić uciec robić postępy awansować	DOSTAĆ wydobywać znaleźć nabyć wygrać zdobyć zyskać wystarać się (złapać) zabezpieczyć kupić złapać porodzić	1 pojąć percepować rozumieć nauczyć się zapomnieć	4 ACTION VERB (total or partly reflexive) golić się ubierać się przygotowywać się myć sobie ręce
	SPOWODOWAĆ, ŻE KTOŚ (COŚ) JEST		SPOWODOWAĆ, ŻE KTOŚ MA... dostarczyć		SPOWODOWAĆ, ŻE KTOŚ ROBI COŚ (DZIAŁA)
	przygotować verbalized noun zdenerwować przestraszyć zabić ... 7	złapać zabrać przynieść położyć wysłać opanować prowadzić	postarać się, żeby przyczynić się, zaopatrzyć dać sprzedać pożyczyć 6	ktoś miał żeby ktoś miał narobić	zmusić kogoś, żeby zrobił coś namówić „ — „ — „ — „ postarać się, żeby ktoś coś zrobił kazać nakłonić przekupić zapalić [+benefactive] wynająć się 8

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THE SEMANTICS OF *HOW* AND *WHY* QUESTIONS IN ENGLISH AND POLISH

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This paper is concerned with the semantic structure of *How* and *Why* Questions in English (*How* Qs and *Why* Qs), and *Jak* i *Dlaczego* Questions in Polish (*Jak* Qs and *Dlaczego* Qs).

At the outset a distinction between two terms: Interrogation and Question will be introduced.

Next, we shall touch upon the necessity of the application of the performative hypothesis to the analysis of questions in English and Polish.

Finally, we shall attempt to show that questions such as those in 1, 2, and 3

1) Why has she read that book?
2) What has she read that book for?
3) How come she has read that book?

and their Polish counterparts 4, 5, and 6,

4) Dlaczego ona przeczytała tę książkę?
5) Po co/w jakim celu ona przeczytała tę książkę?
6) Jak to się stało/jak do tego doszło, że ona przeczytała tę książkę?

are all derived from the same semantic source in both languages. For English this semantic source is a noun phrase Reason followed by a Proposition and for Polish it is a noun phrase Powód followed by a Proposition. Similarly, a semantic source for English *How* Qs and Polish *Jak* Qs will be postulated.

Before we start to deal with *How/Jak* and *Why/Dlaczego* Qs in English and Polish we shall dwell a bit on Interrogation and Question. These two terms have long been established in the linguistic literature.

However, they have often been used quite freely. To be more specific, they have been used synonymously. This synonymy is unnecessary if utterances are conceived of as having various illocutionary forces which characterize these utterances in the process of linguistic communication. Accordingly, Interrogation and Question should not be used synonymously for at least two reasons: First, Interrogation is a syntactic property of sentences and it has various realizations in the languages of the world, that is, it is language specific. It is usually characterized by several syntactic exponents such as a special word order and/or special interrogative words or particles.

Question, on the other hand, is a communicative property of utterances and is characterized by having the same or very similar functions in all languages. In short, Question is a speech act. As a speech act Question is analyzable in terms of rules relevant to the analysis of linguistic communication; for example, sincerity conditions, presuppositions, inferences, etc., and it is also analyzable in terms of its relation to other speech acts, for instance, requests, commands, suggestions and other speech acts.

Second, interrogative sentences may be used in discourse in a variety of functions. This means that one and the same interrogative sentence may be used in linguistic communication, that is discourse, with a different illocutionary force. This feature characterizes not only interrogative sentences but other sentence types as well. Searle (1970 : 70) says that "... it is important to realize that one and the same utterance may constitute the performance of several illocutionary acts...".

Thus, an interrogative sentence can be used in the function of a request, for example;

7) Could you open the window?

7. above means something like 8);

8) I request you to open the window.

An interrogative sentence can be used in the function of a suggestion as well. 9) below expresses something like 10).

9) Shall we call it a day?

10) I suggest that we call it a day.

Interrogative sentences, needless to say, also function in discourse as questions. Throughout this paper Question will be taken to mean a speech act in the sense of Gordon and Lakoff (1971), that is, a linguistic expression used in the process of communication to elicit a verbal response such that it supplies the information asked for.

As we have seen above, it is not always the case that interrogative sentences are used in this sense, that is, they do not always function as questions.

To finish this terminological discussion concerning Interrogation and Question it must be pointed out that the majority of linguists implicitly dstinguish between these two terms but explicit and consistent approaches to these terms, and what is more important, to linguistic phenomena that these terms are labels for are very rare.

An exception in this respect is a book by Huddleston (1971), where he consistently distinguishes between the grammatical mood of a sentence and the illocutionary force of an utterance. In his approach the term *interrogative* is used for a type of sentence according to its grammatical mood, whereas question refers to the illocutionary force of a specific speech act (Huddlestone 1971:5).

Before we go any further let us now discuss some problems connected with the performative hypothesis.[1] Although this hypothesis is well known from the works by two philosophers; Austin (1962) and Searle (1970), and from the writings of a number of linguists, for example, Ross (1970), Fraser (1971), Anderson (1971), Schreiber (1972), to mention just a few, it is worth noting that a detailed research on illocutionary forces still remains somewhat inexplicit. Specifically, it is not known what the categories are. A number of speech acts have been proposed by various linguists, for example, request, question, command, threat, etc., but the precise formulation of the content and nature of speech acts is still a matter of future. Next, it is not known which performative verbs should occur in the higher sentence, marking the illocutionary force of an utterance.

Furthermore, it is not clear what sort of structures should follow the performative clause. Most writers follow Ross (1970 : 263) who suggested that Questions, for example, should be derived from "... deep structures whose two highest sentences are, roughly, I request of you that you tell me S′, where S′eventually becomes the main clause of the question ...". This proposal is also advocated by Schreiber (1972 : 330). However, it seems that not all S's may eventually become the main clause of the question. For example imperatives cannot occur in this position and 11) will not yield a question.

11) I request of you that you tell me *go away*

where *go away* is the S′ following the performative sentence.

In view of the above it seems reasonable to assume that the performative sentence marking the illocutionary force of an utterance should be followed by some sort of a semantic structure and not a syntactic structure. Accordingly, questions should be derived from semantic structures of two types:

Type I. S or not S
Type II. S with an indefinite NP

Type I is an underlying structure for Disjunctive Qs and Type II is an underlying structure for Special Qs. Together with the performative sentence these underlying structures constitute the semantic inputs for Disjunctive and Special Questions.

12) and 13) represent the semantic inputs for Qs represented in 14) and 15).

12) I request of you that you tell me either John is a fool or John is not a fool.

13) I request of you that you tell me John is somewhere.

---

[1] For a more thorough overview of the performative hypothesis see Oleksy (1975).

14) Is John a fool?

15) Where is John?

The above suggested configuration of the performative sentence and the semantic input is also responsible for the presuppositional content of questions which is different from the presuppositional content of other speech acts. We shall follow Kuroda (1974) in this respect. Under the above assumption "Is John a fool?" would not merely presuppose that John *exists* but rather it would presuppose *John is a fool* or *John is not a fool.*

It is easy to notice that structures such as 12) and 13) can be postulated for Polish Qs as well and probably for Qs in other languages.

Despite some shortcomings of the performative hypothesis this hypothesis has important implications for universal grammar since performative sentences have to be postulated for all languages. It seems that the performative hypothesis can be of some value for the contrastive analysis as well because it provides a convenient framework for the comparison of the communicative functions of utterances in two languages.

After these preliminaries it is now time to pass to the analysis of Special Questions (SQs) containing *Why* and *How*, and *Dlaczego* and *Jak* in English and Polish.

SQs containing *Why/Dlaczego* in their surface representations, that is *Why* Qs and *Dlaczego* Qs in English and Polish respectively are derived from an underlying indefinite NP Reason/Powód. The arguments for deriving question words from indefinite NP's have been discussed in Bach (1970), and Ross (1967) so there is no need to repeat this discussion here. Instead, we shall concentrate upon the discussion of the semantic structure of Reason/Powód.

Bolinger (1957 : 124) mentions that reason may mean either 'motive' or 'cause'; the former is realized overtly as Why and the latter as *How come.* But things do not look that simple. Gordon and Lakoff (1971 : 70), for example, point out that *Why* Q's which ask for a reason, may, in fact, be asking for either information or for justification, e.g :

16) Why are you painting your house purple?

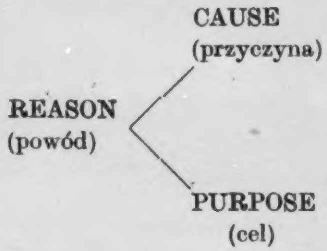
17) Dlaczego malujesz swój dom na purpurowo?

According to Zwicky and Zwicky (1971) this NP Reason may refer to an external explanation, i.e. a cause or to an internal explanation, that is, to an intention on the part of some agent, i.e. a purpose. The split of the semantic structure of Reason into Cause and Purpose corresponds to Gordon and Lakoff's information and justification. The division of Reason into Cause and Purpose is relevant to semantic considerations and we shall dwell upon this for some time.

The Cause/Purpose division of Reason is manifested in questions as *how come* and *what ... for*, respectively. These two aspects of Reason can be neutralized in questions occurring in discourse to *why.*

Table III below may be said to represent the semantic structure of Reason;

III



III represents the semantic structure of Reason which is a part of the semantic input to all *Why* Questions in English and Polish.

The above discussion will not be complete if we do not state which surface forms express or realize which part of the division of Reason. Zwicky and Zwicky (1971) suggest *how come*, *what ... for*, and *why*. However, Bolinger (1957) and Huddleston (1971:27) mention *how* as also belonging to the same class as *why*, *how*, *come*, and *what ... for*.

Let us now examine some *Why* Q's on both languages.

18) Why has she read that book?
19) Dlaczego ona przeczytała tę książkę?
20) What has she read that book for?
21) Po co/w jakim celu ona przeczytała tę książkę?
22) How come she has read that book?
23) Jak to się stało/jak do tego doszło, że ona przeczytała tę książkę?

These sentences (18 - 23) show that there are meaning distinctions between *what ... for* and *how come*, and that *Why* Qs in English and *Dlaczego* Qs in Polish express both the meaning of *What ... for* Qs (Po co, w jakim celu) and the meaning of *How come* Qs (Jak to się stało, jak do tego doszło).

This is quite natural since they are all derived from Reason, i.e., the same semantic source.

The above discussion of *Why/Dlaczego* Questions in English and Polish can be presented in the form of 24.

	A		B	
	Semantic	**Structure**	**Surface**	**Representation**
			English	**Polish**
24)	*REASON* (powód)	*CAUSE* (przyczyna)	why how come how	dlaczego/czemu jak to się stało skąd
		PURPOSE (cel)	why... what...for	dlaczego/czemu po co

An interesting observation to be made about 24) is that the semantic interpretation of the items in B of 24), may be arrived at independently in both languages. This means that it is immaterial which language we start with unless what we look for are not syntactic (phonetic distinctions but semantic structures of the items under investigations. This agrees, in principle, with the suggestions concerning the universal base hypothesis (Ross 1970), and new proposals concerning contrastive analyses (Krzeszowski 1974).

Let us now sketch the analysis of *How/Jak* Questions in English and Polish. The analysis of the available data shows that *How* and *Jak* as Question Words are derived from two different semantic sources, namely, Manner and Degree;

25) How did you find him?

In Polish 25) may be either 26) or 27), e.g.;

26) Jak go znalazłeś?

27) W jakim stanie go znalazłeś?

In the case of the English question the interpretation of *How* may be obscured by the fact that the verb find means two different things; once it may be a static verb and another time it may be a verb expressing an action. 28) and 29) represent the semantic structures of *How* and *Jak* in English and Polish respectively together with their surface realizations.

	A	B	
	Semantic Structure	Surface	Representation
		English	Polish
28)	*MANNER* (sposób)	how	jak
29)	*DEGREE* (stopień)	how	jaki jaka jakie jak

How in English has an attributive function if it is derived from Degree. For example;

30) How big is he?

31) Jak/jaki duży on jest?

In Polish the pre-adjectival function of *How* is more frequently expressed by *Jaka*, *Jaki*, *Jakie* than by *Jak*.

Both *How* Q's in English and *Jak* Q's in Polish use *How* and *Jak* before adverbs, e.g.;

32) How fast can you type?

33) Jak szybko możesz pisać na maszynie?

Thus it can be said that both pre-adjectival and pre-adverbial How/Jak Words in questions are derived from the same semantic source, i.e. Degree/Stopień in English and Polish.

Conclusions

Why/Dlaczego Questions in English and Polish are derived from the semantic source Reason. This semantic source is found to be of a composite nature; it splits into Cause and Purpose. Cause is overtly represented in questions by *why*, *how come*, and *what ... for* in English, and by *dlaczego/czemu*, *jak do tego doszlo*, *jak to się stalo*, and *skąd* in Polish. Purpose is represented overtly by *why* and *what ... for* in English, and by *dlaczego/czemu* and *po co* in Polish.

How/Jak Questions in English and Polish are derived from two semantic sources represented by *How* in English and by *Jak* in Polish. Degree is a semantic source generating questions with *how* in English and *jaki*, *jakie*, *jaka* and *jak* in Polish. *Why* and *How* Qs in English, and *Dlaczego* and *Jak* Q's in Polish are found to be equivalent at the level of the semantic input.

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ON QUESTIONS AND ANSWERS IN ENGLISH AND POLISH

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1.0. Before presenting the various problems shared by English and Polish questions and answers, we would like to make a few remarks about the nature of questions and answers in general. The most important thing to be noticed in this respect seems to be the fact that just as it is impossible to have an answer without some other immediately preceding utterance, it is equally impossible to discuss the various problems connected with the phenomenon of answer without its immediate context. The utterances immediately preceding the answer can be of several distinct types, however in linguistic terms, they are all covered under one label of QUESTION. Semantically, all questions have in common the fact that the speaker utters them with the intention of inducing a linguistic response from the listener. Whenever the speaker decides to ask a question (apart from rethoric questions), he always addresses it to some person (or persons) and doing this he assumes that this person will satisfy his request for information included in the question itself. This act of the speaker of addressing his question to a given person in a given situation and expecting this person to provide the answer will be referred to throughout this paper as ASSUMPTION (of the speaker). Another term we would like to introduce as necessary for the analysis of questions and answers is PRESUPPOSITION, which we define as those conditions that the world of both the speaker and the hearer must meet in order for the sentence to make literal sense. Thus, if some such condition is not met for some sentence S, then either S makes no sense at all, or else it is understood in some non-literal way, e.g., as a joke or a metaphor (Keenan 1972).

1.1. We would like to carry out our analysis contrasting examples of questions and answers taken from English and Polish. The aim of the present paper is to investigate whether in these two particular languages we can speak about the same phenomena of proper or deviant ANSWERS to the same QUESTIONS, and, if so, whether the proper or deviant cases can be accounted for on the same grounds in the two languages. Because of the limited character of the paper we will only be able to investigate the problem of just one category of questions, namely the ones traditionally referred to as WH- or Interrogative Word Questions.

1.2. During the following discussion only the mutual relations between questions and answers will be dealt with, without considering their broader situational contexts.
Throughout the paper the person asking the question will be referred to as the **SPEAKER**, while the addressee of the question will be referred to as the **LISTENER** (or **HEARER**).

2.0. Let us consider the following examples:

1. What are they singing?
2. When did John come?
3. What can you do?
4. Where have you been?

Each of these questions belongs to the large group traditionally referred to as Wh-Questions. What is important about Wh-Questions is that each of them carries with itself some sort of presupposition, on the part of the speaker. And thus, the presupposition underlying (1) is that *some people are singing something*, and in order to ask (1) the speaker must possess the knowledge that something is happening. If this condition had not been fulfilled, there would have been no grounds for the speaker to say (1). The same concerns (2, 3, & 4), where the presuppositions are the following:

2a. Somebody came sometime.
3a. Somebody is able to do something.
4a. Somebody has been somewhere.

Let us now have a look at the Polish examples:

5. Co oni śpiewają?
6. Kiedy przyszedł John?
7. Co potrafisz robić?
8. Gdzie byłeś?

The general presuppositions underlying each of the above questions are the following:

5a. Ktoś śpiewa coś.
6a. Ktoś przyszedł kiedyś.
7a. Ktoś potrafi coś robić.
8a. Ktoś gdzieś był.

2.1. It is important to notice here that these are presuppositions of a most general type, for as soon as the speaker decides to ask a question one of these "general" elements is, for the sake of the question being proper and unambiguous, specified. And thus, when the speaker asks (5) or (6), he already knows that (5a′) or (6a′), respectively:

5a′. *Oni* coś śpiewają.

6a′. *John* kiedyś przyszedł.

The same situation occurs in English. Compare:

1a. Somebody is singing something.
2a. Somebody came sometime.

versus;

1a′. *They* are singing something.
2a′. *John* came sometime.

whereas in Polish, only *something* or *sometime* elements need further specification. And, as the speaker expects the listener to possess the missing information, he asks him just about this one unspecified slot, cf.,

1. *What* are they singing?
2. *When* did John come?
5. *Co* oni śpiewają?
6. *Kiedy* przyszedł John?

2.1.1. In (1a), for example, both *somebody* and *something* allow an indefinite number of possibilities. The choice depends on the speaker's knowledge of his world. From the two possibilities offered in (1a) he asks about the one that is unknown to him. But no matter which is the known or unknown one, i.e., whether *somebody* or *something* he must have the knowledge of the fact, i.e., that there is somebody who is singing something, even if he has not the slightest idea who the person is or what he is singing.

In (1), somebody is replaced by *they* and only *something* remains unspecified. On the other hand, a reverse is also possible, and (1′) is a very good example of a case like this:

1′. *Who* is singing this love song?

Compare some other examples:

2′. *Who* came yesterday?
5′. *Kto* śpiewa tę pieśń miłosną?
6′. *Kto* przyszedł wczoraj?

They all represent fully grammatical English and Polish questions.

3.0. The problem now is whether the notion of presupposition underlying each Wh-Question does contribute anything to the answer following each such question. Let us consider a few examples:

1. What are they singing?
    b) A love song.
    c) Their national anthem.
    d) Some regional tune which I don't know.
    e) They're not singing, they're murmuring some tune.
    f) I don't know.
    g) A song.
5. Co oni śpiewają?
    b) Pieśń miłosną.

c) Ich hymn narodowy.
d) Jakąś regionalną melodię, której nie znam
e) Oni nie śpiewają, oni nucą jakąś melodię.
f) Nie wiem.
g) Piosenkę.

2. When did John come?
   b. Yesterday.
   c. He came yesterday.
   d. Sometime.
6. Kiedy przyszedł John?
   b) Wczoraj.
   c) (On) przyszedł wczoraj.
   d) Kiedyś.
3. What can you do?
   b) Swim.
   c) I can swim.
   d) Something.
7. Co potrafisz robić?
   b) Pływać.
   c) Potrafię pływać.
   d) Coś.

As can be noticed from the above examples, the range of possibilities in responding to any of the provided questions is very wide, though, of course in every case definite. The listener has no more possibilities than the knowledge of his world permits him to have.

3.1. However, as has been already pointed out, not all responses to questions are equally adequate with regards to the information for which the speaker asks the listener. And thus, for example, responses (1b) through (1d) representa, let us call it, prefect question—answer situation, where:

(a) the speaker realizes that something is happening, ie., that *they are singing something*, however he does not know what they are singing;
(b) the speaker expects the listener to possess the necessary information and therefore asks (1), and
(c) the listener possesses the information and passes it to the speaker;
(d) the speaker's request is positively fulfilled by the hearer and his response can be treated as a ***proper ANSWER to the QUESTION.***

QUESTION

The same can be said about examples (2b, c) and (3b, c) and (3b, c), to present but a few. Similar analysis carried out for Polish brings the same results, i.e., answers (5c, d), (6b, c) and (7b, c) can also be assigned the status of proper answers to their corresponding questions.

Summarizing we could say, that an answer to a question is proper when both the assumption of the speaker and the presupposition of the question are correct.

3.1.1. Before passing on to the discussion of some other responses we would like to point out that it is not obligatory for a proper answer to be composed of, in syntactic terms, subject, verb and object, i.e., for example answers (2b) and (6b) are in the same way proper as answers as their more syntactically elaborate counterparts represented by (2c) and (6c), respectively. Answers like (2b), (6b) and also (1b), (3b), (5b) and (7b) should be thought of as contextually reduced versions of full answers, and fully understood only on the basis of their whole context, i.e., together with the corresponding questions. The characteristic feature of these reduced forms is that only the content of the Wh-category is actually present in the answer. Nevertheless, though syntactically somewhat deviant, semantically they do not differ from their full counterparts. The process of formulating an answer is in both cases the same; they both derive from the same underlying semantic representation. What the listener has to do first is to specify whether he has any information about the questioned Wh-category. In the case where the specification is positive he chooses from all the possibilities the Wh-set offers him the one that, according to his knowledge, is true, e.g., from the whole WHEN (or KIEDY) set he chooses *yesterday* (or *wczoraj*) if it was yeasterday that John came. All the other constituents are already provided in the question' Then, because of the obvious situational context, the verb part of the structure of ANSWER can be deleted leaving out the content of the category marked in the question *WH-*. In semantic terms, this is the most crucial element of the ANSWER; the others contribute no semantically new information.

4.0. Example (e) presents still another way of responding to (1):

1. What are they singing?

    e) They're not singing, they're murmuring some tune.

On the basis of what has been said about the conditions that must be fulfilled by every proper ANSWER to its corresponding question, we can undoubtedly decide that (1e) cannot be assigned the label of proper answer to (1). It does not provide any information whatsoever on the questioned category WHAT. Moreover, it presents the speaker with a new situation from which he learns that his knowledge of the world is not proper, that he has mistaken himself in presupposing that they are singing something, for, in fact, what they are doing is not singing but murmuring. Some more examples will help to justify our position:

2. When did John come?

    e) He did not come, he arrived.

4. Where have you been?
   b) I haven't been anywhere.
9. Who came?
   a) But nobody came.
10. Where did he buy this shirt?
   a) He didn't buy it, he stole it.

In each of the above examples the listener tells the speaker that he was wrong presupposing that *John came* (because he arrived) that *I have been somewhere* (because I haven't been anywhere), etc. But even then, he is not telling the speaker *when* John arrived, or *where* he stole that shirt, etc.

Examples (5e, 6e, 8b, 11a, and 12a) pose the existence of the same problem in Polish:

5. Co oni śpiewają?
   e) Oni nie śpiewają, oni nucą jakąś melodię.
6. Kiedy John przyszedł?
   e) On nie przyszedł, on przyjechał.
8. Gdzie byłeś?
   b) Ależ ja nigdzie nie byłem.
11. Kto przyszedł?
   a) Ależ nikt nie przyszedł.
12. Gdzie on kupił tamtą koszulę?
   a) On jej nie kupił, on ją ukradł.

4.1. At this point appears the problem of how responses of this sort should be treated. It has been already agreed that they are not proper answers to their corresponding questions. And they cannot be understood as evasions to the questions, either. The point is that in each of the above situations the presupposition underlying the question asked was incorrect. But although the presuppositions of all of the above questions are violated, their assumptions are always correct: the listener does possess the knowledge of the fact, and so the speaker was not wrong addressing his question to him. However, as the speaker's presuppositions about his questions were not correct, the task of the listener is first to correct the mistake and only then explain to the speaker whatever else needs further explanation. This type of answers could be assigned the label of EVALUATIVES, to distinguish them from the proper ANSWERS.

5.0. The speaker can make one more mistake while forming his question and addressing it to the hearer. Let us consider the following examples:

1. What are they singing?
   f) I don't know.
5. Co oni śpiewają?
   f) Nie wiem.
9. Who came?

b) I don't know.
11. Kto przyszedł?
b) Nie wiem.

In each of the above questions the speaker was wrong assuming that the listener would know the answer, that he would know WHAT or WHO (CO or KTO). However the listener's knowledge of his world did not allow him to provide the speaker with the requested information, as he did not have any. Thus *I don't know* can on no grounds be assigned the status of ANSWER to (1) or (5) or (9) or (11).

5.1. Is this, however, the only possible way of explaining the origin and meaning of such responses? For the reason of further investigation it would be helpful to paraphrase the above questions in the following way:

1′. *Do you know* what they are singing?
5′. *Czy wiesz,* co oni śpiewają?
9′. *Do you know* who came?
11′. *Czy wiesz,* kto przyszedł?

As has been pointed out, the *do you know* (or *czy wiesz*) part of interrogative word questions constitutes, what we have called, the assumption of any such question. Thus, if the listener responds to any such question by *I don't know* (*Nie wiem*) he does one of the two things: (a) either denies the *do you know* part of the question, i.e., denies the speaker's assumption or (b) the information about the Wh-part of the question. Situation (a) examplifies a case where the speaker was wrong assuming that the hearer would know WHAT or WHO (CO or KTO); moreover, the listener has no knowledge of the action or fact itself. This response could be paraphrased as something like the following *I dont't know at all that they are singing,* which simultaneously entails *so I don't know what they are singing.* Compare the similar situation in Polish: *Ja w ogóle nie wiem, że oni śpiewają → A więc nie wiem, co oni śpiewają.*

5.1.1. In situation (b), on the other hand, the listener is probably aware of the fact, or action, however, he has no positive information about the questioned element. His response could be paraphrased as something like the following:

1f′. I know that they are singing, but *I don't know* what they are singing.
5f′. Wiem, że oni śpiewają, ale *nie wiem,* co oni śpiewają.
9c. I know that somebody came, but *I don't know* who came.
11c. Wiem, że ktoś przyszedł, ale *nie wiem,* kto przyszedł.

It is very difficult to distinguish, in typological terms between these two types of *I don't know* responses. For one thing, in neither of them does the listener deny the truth value of the presupposition of the question, though the ASSUMPTION is incorrect in respect of both the cases. Generally speaking, *I don't know* is always understood as a negative response. In situation (a) the hearer's response can be treated as a much more general negation than the one in situation (b). But neither of these responses can be understood as ANSWERS to their corresponding questions.

6.0. Another possible response the speaker can get after having asked (1) can be:

1. What are they singing?
   g) A song.

And in Polish:

5. Co oni śpiewają?
   g) Piosenkę.

Can this sort of response be considered the proper answer to question (1)/and (5) in Polish? We think it cannot. The inherent feature of the verb *sing* is that it is (almost) always a *song* that one sings, and no matter what kind of a song it is. Therefore, answering (1) by (1g) is not providing the information the speaker requests from the listener. On the other hand, if the listener answered (1) by (1h):

1h. Something.

the effect would be exactly the same as in the case of (1g). At the moment of formulating his question, the speaker is fully aware of the fact that somebody is singing *something*, However, he cannot specify this *something* as he has no information about this element. Thus, for the hearer to respond to (1) by (1g) or (1h) is to repeat what the speaker already knows, is, in another words, to repeat the presupposition of the question.

Let us investigate some more examples:

13. *Who* saw mother?
    a) *Someone* (saw mother).
    b) *I* (saw mother).
    c) *The man who suffers from diabetis* (saw mother).
14. *Kto* widział matkę?
    a) *Ktoś* (widział matkę).
    b) *Ja* (widziałem matkę).
    c) *Mężczyzna, który cierpi na cukrzycę,* (widział matkę).
15. *Where* did mother go?
    a) (She went) *somewhere.*
    b) (She went) *to the pictures.*
    c) (She went) *to that small shop at the corner of the street.*
16. *Dokąd* poszła matka?
    a) (Poszła) *dokądś.*
    b) (Poszła) *do kina.*
    c) (Poszła) *do tego małego sklepu na rogu ulicy.*
17. *How* did you open the door?

a) (I opened it) *somehow*.
b) (I opened it) *with a key*.
c) (I opened it) *by using force*.

18. *Jak* otworzyłeś drzwi?
a) (Otworzyłem je) *jakoś*.
b) (Otworzyłem je) *kluczem*.
c) (Otworzyłem je) *siłą*.

It can be easily observed that each of the (a) of English and Polish responses differs from the remaining two in the degree of adequacy of information they carry. In (13) the questioned category is WHO (KTO). According to what has been already stated proper answers are these responses that are strictly related to the question asked, that provide the speaker with maximum possible information. In these terms, (13b) constitutes the proper answer to (13), and so does (13c). The same can be said about (15b, c) and (17b, c), and also about (14b,c), (16b,c) and (18b,c). What is the difference, then, between these and the (a) responses of (13, 14, 15, 16, 17 and 18)?

The main one is that none of the (a) answers provides the speaker with concrete information about the Wh-categories, i.e., WHO, WHERE and HOW (and also KTO, GDZIE, and JAK in Polish). If one to the question WHO answers *Somebody*, it is very likely that the next question will follow: *But who was this somebody*? Similarly:

19. But *what* place was this somewhere?
20. But *in what way* was this somehow?
21. Ale *dokąd* dokładnie?
22. Ale *w jaki sposób* dokładnie?

It seems reasonable to state that neither *somebody*, nor *somewhere*, nor *somehow*, nor, in Polish, *ktoś, dokądś, jakoś* provide information satisfying the speaker, as he is already aware of the fact that (1) *somebody* saw mother, (2) mother went *somewhere* (3) the listener opened the door *somehow*. But he wants exact information about each of these actions. Since (13a, 15a, 17a) and (14a, 16a, 18a) fail to provide this information, it is impossible to call them proper answers to (13, 15, 17) and (14, 16, 18), respectively. In fact, these are EVASIONS to these questions.

6.1. Generally speaking, EVASIONS can originate in a sitution where the listener either (a) has some reason for not providing the speaker with the requested information or (b) does not want to provide him with the information out of his pure ill-will or (c) does not know the answer. However, in neither of these subtypes can we speak about violation of assumption or of presupposition. Thus, the origin of this type of responses cannot be accounted for in terms of these two notions.

7.0. In the above short typological analysis of the way in which questions and answers are related in English and Polish, we have distinguished four main types of responses that a speaker may receive to his question:

1. *Proper Answers* where both the assumption of the speaker and the presupposition are correct and thus the listener can provide the speaker with the requested information.
2. *Evaluations* where the assumption of the speaker is correct but the presupposition of the question is violated.
3. *I don't know* type of responses, where the assumption of the speaker is violated but the presupposition is (or may be) correct.
4. *Evasions* where neither the assumption nor the presupposition are violated but nevertheless the listener does not provide the speaker with the requested information.

7.1. On the basis of this short analysis it can be concluded that in both the investigated languages the process of asking a question and providing it with a response of some sort is governed by the same type of rules. For example, if some response R is understood in English as being the proper semantic ANSWER to a question Q, its Polish counterpart satisfies the same conditions of a proper answer. The same can be said about all other sorts of the so far discussed questions and answers.

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ON THE KINSHIP TERMS IN ENGLISH AND POLISH

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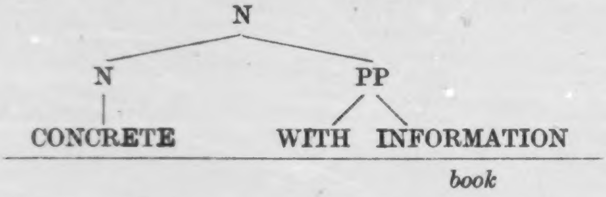
0.0. This paper is far from being exhaustive and complete. Some solutions presented here may seem unsatisfactory. Nevertheless, it is assumed that it will be possible to present sufficient solutions in the future by more careful application of the theory which is followed in this paper.

1. BASIC THEORETICAL ASSUMPTIONS

1.1. The analysis of kinship terms is based in the present paper on the principles of generative semantics as developed by Lakoff (1971), Mc Cawley (1968; 1972) and others. Lakoff's 1971 model allows for options as far as lexical insertions are concerned. It is not assumed in Lakoff (1971) that lexical insertions apply in a block with no intervening nonlexical transformations or that lexical items are inserted in some other way. In this point Gruber's (1967) principle of lexical insertions is followed in the present paper. The lexical attachment process is polycategorial in Gruber (1967). Lexical items are attached to trees which constitute their semantic representations. e.g.



Gruber (1967:25).

Such elements of the underlying structure as CONCRETE are not lexical items. They are terminal categories before the lexical attachment process. They are categories taken from the set of node labels such as NP, V, etc. Such categories as CONCRETE are not qualitatively different from such categories as N or NP. Such a category is only more sensitive than N according to Gruber (1967). In this paper such categories will receive a slightly different status (see the next section).

A semantic representation of a given lexical item is presented by means of a phrase marker relevant for the attachment of the lexical item in question. Such a lexical attachment is called "translational" because a tree which is a semantic representation of a given lexical item is "translated" into a concrete lexical item.

1.2. One more principle will be adopted in the present paper. This principle is maintained by such Polish and Russian linguists as Wierzbicka, Bogusławski, Karolak, Žolkovskij, Melčuk and others. Those linguists use the procedure called "explication" in their analysis of utterances. The aim of explication is to recover all semantic relations in a given sentence even if the relations are not always clearly perceptible in the surface structure of a given sentence (c.f. Wierzbicka 1969; Karolak 1972).

Polish and Russian generative semanticists postulate the existence of a set of atomic expressions (indefinibilia) which do not have a complex semantic structure (i.e. an atomic expression cannot be analyzed more deeply). All sentences should be analyzed using indefinibilia which are achieved by explication (c.f. Wierzbicka 1969; Karolak 1972). The result will be a semantic language composed of atomic expressions. The goal of explication is explicitly formulated. A string constituting a semantic representation of a sentence or of a lexical item consists of semantically atomic expressions e.g., *biec*=o istocie żywej posiadającej nogi: posuwać się, odrywając na zmianę nogi od powierzchni (Grochowski 1973:192).

The way of arriving at the level of semantic representation seems to be a little bit mysterious in the explication theory. There are no explication rules which would clearly establish a procedure of arriving at the level of atomic expressions, to the present author's knowledge. For this purpose the procedure of "generation" as employed by transformational linguists will be adopted in this paper because the way of arriving at the level of semantic representation can be clearly presented by means of rules and phrase markers. Nevertheless, the level of semantic representation is not so clearly formulated by the American generative semanticists, as it is in the case of explication theory. The problem of the depth of an underlying structure still constitutes an important issue in the works of generative semanticists and their opponents. The level of semantic representation as formulated by the representatives of the explication theory will be followed in the present paper because of its more explicit formulation.

Therefore it is assumed that terminal categories before the lexical attachment process like PARENT, FEMALE, etc. are indefinibilia (i.e. semantically atomic expressions).

It is further assumed that it is possible to analyze kinship terms in English and Polish by means of a finite number of atomic expressions. The kinship terms are "translations" from underlying trees constituting their semantic representation where lexical insertions and transformations interact.

1.3. The theoretical assumptions for the present analysis of kinship terms may be summarized as follows:

1. General acceptance of the principles of generative semantics.
2. Polycategorial lexical attachment.
3. Terminal categories before the lexical attachment process are assumed to be semantically atomic expressions.

1.4. Thus, the grammar for the analysis of kinship terms, as informally presented, is as follows:

I. Base Rules

1. S → NP+VP
2. NP → Det+N(+S)
3. VP → V[1](+NP)
4. $\text{N} \rightarrow \begin{Bmatrix}\text{HUMAN BEING}\\ \text{PARENT}\\ \text{CHILD}\end{Bmatrix}$[2]
5. $\text{V} \rightarrow \begin{Bmatrix}\text{ADULT}\\ \text{FEMALE}\\ \text{MALE}\\ \text{MARRIED}\\ \text{NOT}\\ \text{OF}\\ \text{SAME}\end{Bmatrix}$
6. $\text{Det} \rightarrow \begin{Bmatrix}\text{A}\\ \text{THE}\end{Bmatrix}$

II. A set of presuppositions of the type: From the point of view of...

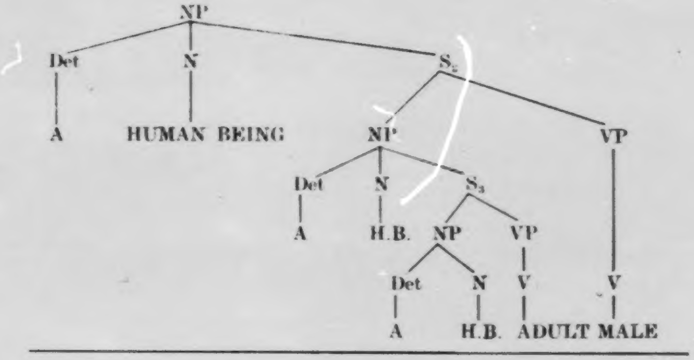
III. Lexical and transformational rules which interact in this model.

The analysis of lexical items *a man* and *a woman* will serve as the example of such an analysis:

---

[1] Where V is a predicate rather than a verb. Leech (1974) has recently convincingly argued for the analysis in terms of predicates rather than verbs at the level of an underlying semantic structure. He states that there seems to be no reason for classifying adjectives, conjunctions, prepositions, etc. as "really verbs" and not for instance verbs as adjectives.

[2] It is possible that the number of arguments and predicates can be reduced or has to be increased. Nevertheless at the present state of the examination of the problem by this author these sets of atomic expressions are postulated.


NP
Det
N
S₂
A
HUMAN BEING
NP
VP
Det
N
S₃
A
H.B.
NP
VP
Det
N
V
V
A
H.B.
ADULT
MALE

a man
mężczyzna

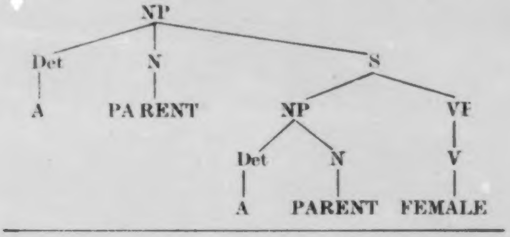
The difference between the above semantic representation and the representation for the lexical item *a woman* is that instead of V → MALE, V of S_2 is rewritten as FEMALE.

2.0. THE ANALYSIS OF KINSHIP TERMS IN ENGLISH AND POLISH

The kinship terms which show semantic equivalence in the two languages will be analyzed in the first section of this part of the paper. The kinship terms which show some differences in English and Polish will be analyzed in the second section.

2.1. The kinship terms in English and Polish which show total semantic equivalence.[3]

a mother corresponding to *matka*
a father ,, to *ojciec*


NP
Det
N
S
A
PARENT
NP
VP
Det
N
V
A
PARENT
FEMALE

a mother
matka

In the case of *a father* and *ojciec* V is rewritten as MALE. Bierwisch (1970: 172) presents the following semantic representation of *a father*:

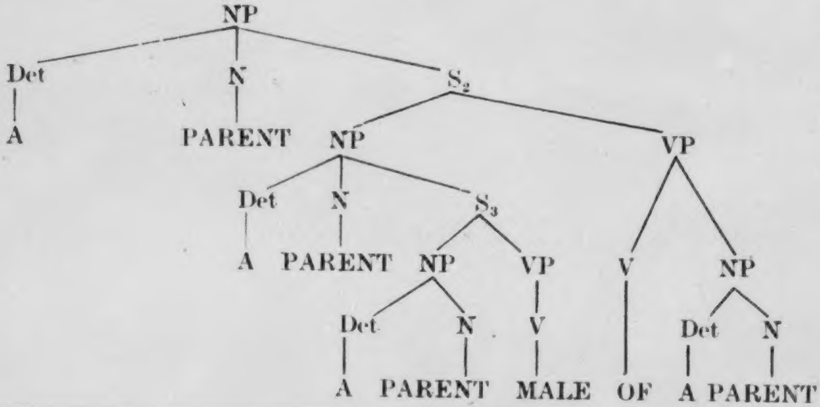
---

[3] The analysis of diminutives such as *mama, mamusia, mamuśka, daddy*, etc. is beyond the scope of the present paper.

X PARENT OF Y and MALE X

It does not seem necessary to include "OF Y" in the semantic interpretation of the lexical item *a father* — it seems, however, that this inclusion of "OF Y" is necessary for the lexical item *the father*.

a grandfather corresponding to *dziadek*
a grandmother ,, to *babka*



a grandfather
dziadek

In the case of a *a grandmother* and *babka* V of S_3 is rewritten as FEMALE
a great grandfather corresponding to *pradziadek*
a great grandmother ,, to *prababka*

The semantic representation of the above lexical item is as follows respectively:

A MALE PARENT (OF A PARENT (OF A PARENT))
A FEMALE PARENT (OF A PARENT (OF A PARENT))

a son corresponding to *syn*
a daughter corresponding to *córka* (cf. top diagram p. 262).

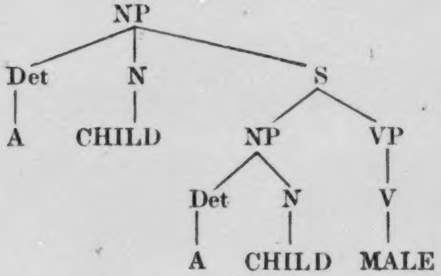
V is rewritten as FEMALE in the case of *a daughter* and *córka* (see p. 262).

Presupposition: from the point of view of A PARENT OF THE CHILD.

It is possible to eliminate CHILD from the semantic representation of kinship terms. Leech (1974 : 248) uses arrows which show the directionality of parenthood where:

→ PARENT "is a parent of" and
→ PARENT "is a child of"

The application of arrows in our presentation would unnecessarily complicate the analysis. Therefore CHILD will be retained in the semantic representation of kinship terms.


NP
Det
N
S
A
CHILD
NP
VP
Det
N
V
A
CHILD
MALE

a son
syn

A grandson corresponding to *wnuczek* can be attached to the tree possessing the following semantic representation:

A SON OF A CHILD OF A PARENT

a granddaughter corresponding to *wnuczka* has the following semantic representation:

A DAUGHTER OF A CHILD OF A PARENT

where SON and DAUGHTER are abbreviations for subtrees underlying *son* and *daughter* respectively:

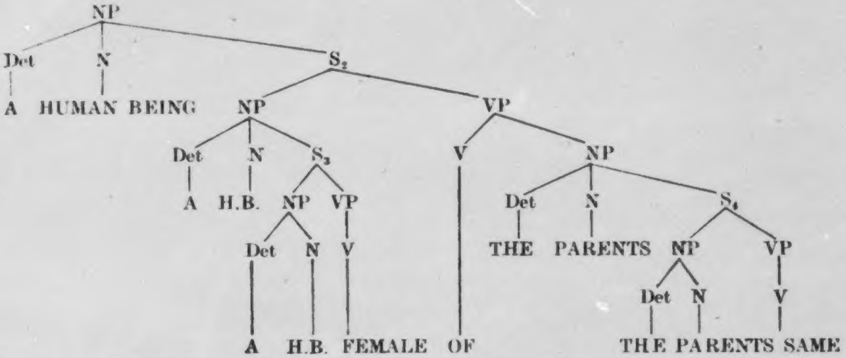
a great grandson corresponding to *prawnuczek*
a great granddaughter corresponding to *prawnuczka*

possess the following semantic representations:

A SON OF A CHILD (OF A CHILD OF A PARENT)
A DAUGHTER OF A CHILD (OF A CHILD OF A PARENT)

a sister corresponding to *siostra*
a brother corresponding to *brat*

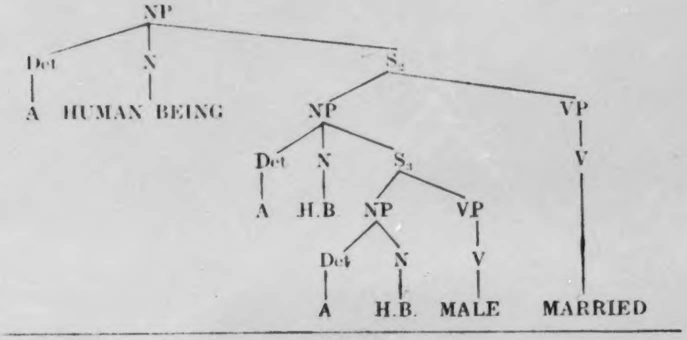
can be attached to the following trees:


NP
Det
N
S_2
A
HUMAN BEING
NP
VP
Det
N
S_3
V
NP
A
H.B.
NP
VP
Det
N
S_4
Det
N
V
THE
PARENTS
NP
VP
Det
N
V
A
H.B.
FEMALE
OF
THE
PARENTS
SAME

a sister
siostra

V of S_3 is rewritten as MALE for the attachment of *a brother-brat*
Presupposition: From the point of view of A CHILD OF THE SAME PARENT.
Presupposition: From the point of view of A CHILD OF THE SAKE PARENT. It is not necessary that a speaker has to be a CHILD OF THE SAME PARENT but he only represents its point of view.

a husband — *mąż*
a wife — *żona*



a husband
mąż

Presupposition: From the point of view of A FEMALE MARRIED TO THE MALE (MARRIED)

in the case of *a wife* and *żona* V of S_2 is rewritten as FEMALE and under a different presupposition.

a son-in-law corresponding to *zięć*

a daughter-in-law corresponding to *synowa* (see diagram p. 264).

where S_3 represents a tree relevant for the insertion of *a husband.*

For *a daughter-in-law* and *synowa* V of S_4 will be rewritten as MALE and V of S_5 as FEMALE

a father-in-law corresponding to *teść*

can be attached to two trees possessing the following semantic structures under two different presuppositions:

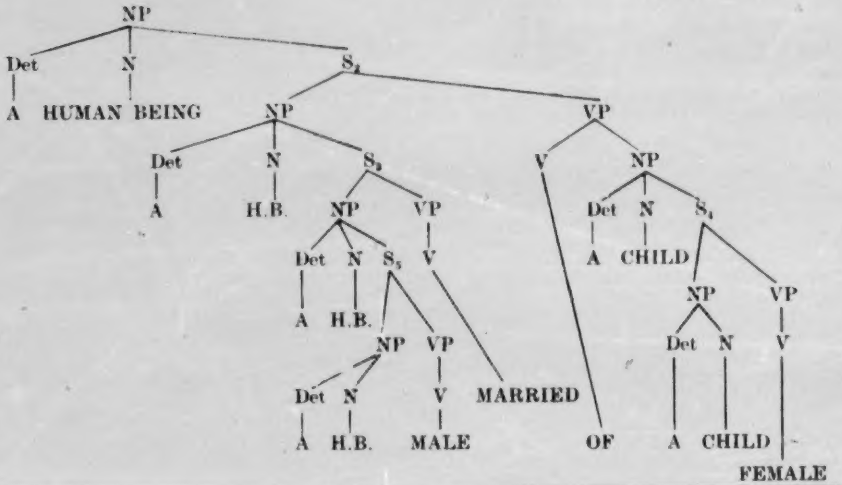
a) A MALE PARENT OF A WIFE
b) A MALE PARENT OF A HUSBAND

the same phenomenon is met in the case of the attachment of *a mother-in-law* and *teściowa*:

a′) A FEMALE PARENT OF A WIFE
b′) A FEMALE PARENT OF A HUSBAND

where HUSBAND and WIFE are abbreviations for their underlying trees

The presupposition for a) and a′) is the following: From the point of view of A HUSBAND OF THE WIFE


NP
Det
N
S₂
A
HUMAN BEING
NP
VP
Det
N
S₃
V
NP
A
H.B.
NP
VP
Det
N
S₄
Det
N
S₅
V
A
CHILD
A
H.B.
NP
VP
NP
VP
Det
N
V
Det
N
V
MARRIED
A
H.B.
MALE
OF
A
CHILD
FEMALE

a son-in-law
zięć

for b) and b′):

From the point of view of A WIFE OF THE HUSBAND

a brother-in-law	corresponding to *szwagier*
a sister-in-law	corresponding to *szwagierka*

A brother-in-law and *szwagier* can be attached to three different underlying trees under three different presuppositions:

A BROTHER OF A HUSBAND
From the point of view of a wife of THE HUSBAND
A BROTHER OF A WIFE
From the point of view of a brother of THE SISTER
A HUSBAND OF A SISTER
From the point of view of a brother of THE SISTER

where HUSBAND, WIFE, SISTER, BROTHER are abbreviations for their underlying subtrees.

It is possible that in some other languages there are distinct kinship terms for the three underlying trees.

A similar situation occurs in the case of *a sister-in-law* and its Polish equivalent *szwagierka*. The items can be attached to three different trees (under appropriate presuppositions):

A SISTER OF A HUSBAND
A SISTER OF A WIFE
A WIFE OF A BROTHER

a step-father corresponding to *ojczym*

A HUSBAND (NOT FATHER OF THE CHILD) OF A FEMALE PARENT

Presupposition: From the point of view of THE CHILD OF THE FEMALE PARENT

a step-mother corresponding to *macocha*

A WIFE OF A MALE PARENT
|
NOT MOTHER OF THE CHILD

a step-son corresponding to *pasierb* can be attached to two trees:

A SON OF A HUSBAND
|
NOT SON OF THE WIFE OF THE HUSBAND

A SON OF A WIFE
|
NOT SON OF THE HUSBAND OF THE WIFE

a step-daughter corresponding to *pasierbica* can be attached to two trees too. SON will be replaced by DAUGHTER and the rest of the representation is the same as in the case of a *step-son* and *pasierb*.

a step-brother corresponding to *brat przyrodni* can be attached to two trees exhibiting the following semantic structure (under appropriate presuppositions):

A SON OF A MALE PARENT
|
NOT SON OF THE WIFE OF THE MALE PARENT

A SON OF A MALE PARENT
|
NOT SON OF THE MALE PARENT

a step-sister corresponding to *siostra przyrodnia* can be attached to two trees:

A DAUGHTER (NOT A DAUGHTER OF THE HUSBAND OF THE FEMALE PARENT) OF THE FEMALE PARENT

Presupposition: From the point of view of A CHILD OF THE FEMALE PARENT

A DAUGHTER (NOT A DAUGHTER OF THE WIFE OF THE MALE PARENT) OF THE MALE PARENT

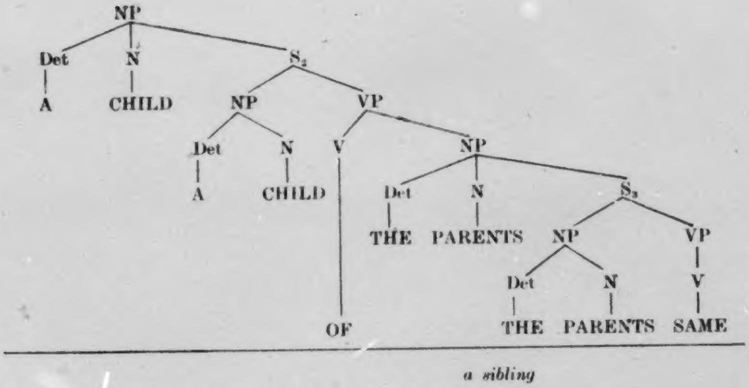
Presupposition: From the point of view of A CHILD OF THE MALE PARENT

2.2. THE KINSHIP TERMS EXHIBITING DIFFERENCES IN ENGLISH AND POLISH

a sibling — no Polish equivalent[4] can be attached to the following tree:

---

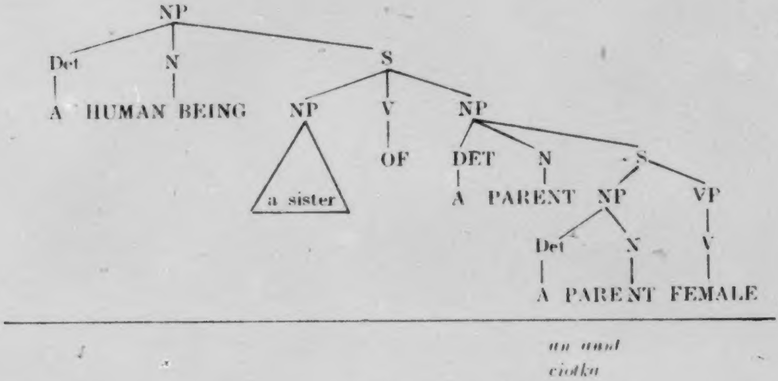
[4] Polish has the equivalent *rodzeństwo* for the plural form of *a sibling*.

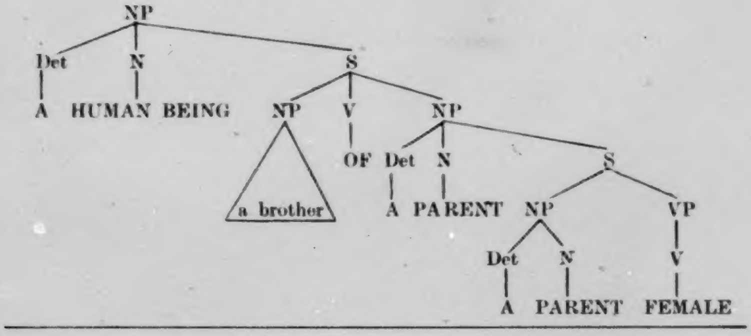

NP
Det
N
S₂
A
CHILD
NP
VP
Det
N
V
NP
A
CHILD
Det
N
S₃
THE
PARENTS
NP
VP
Det
N
V
OF
THE
PARENTS
SAME
a sibling

an aunt corresponding to *ciotka* or $\left\{\begin{matrix}\textit{ciotka}\\ \textit{stryjenka}\end{matrix}\right\}$

an uncle corresponding to *wujek* or $\left\{\begin{matrix}\textit{wujek}\\ \textit{stryjek}\end{matrix}\right\}$

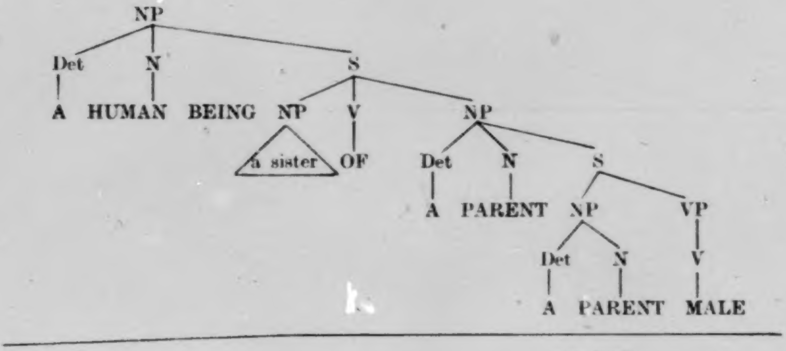
Some speakers of Polish make the distinction between *ciotka* and *stryjenka* and between *wujek* and *stryjek* depending on whether a sister or a brother is of A MALE or A FEMALE PARENT. Speakers of English do not make this distinction and some speakers of Polish, including the author of the present paper, do not make this distinction either. This phenomenon is illustrated by means of four trees relevant for the insertion of these lexical items:


NP
Det
N
S
A
HUMAN BEING
NP
V
NP
a sister
OF
DET
N
S
A
PARENT
NP
VP
Det
N
V
A
PARENT
FEMALE
an aunt
ciotka

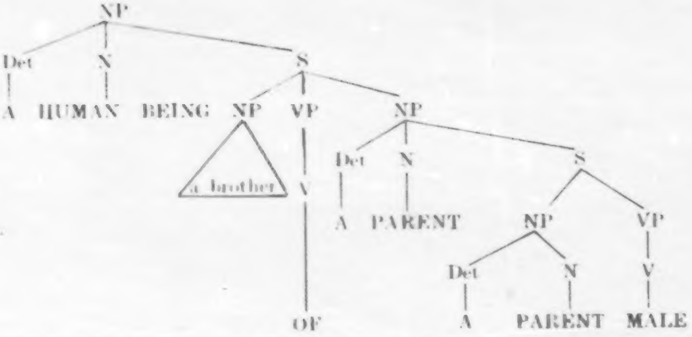

NP
Det
N
S
A
HUMAN BEING
NP
V
NP
a brother
OF
Det
N
S
A
PARENT
NP
VP
Det
N
V
A
PARENT
FEMALE

an uncle
wujek

A niece and *a nephew* are ambiguous when confronted with their Polish corresponding terms. *A niece* can be attached to two trees where one tree will represent the semantic representation relevant for the insertion of Polish *bratanica* and the other relevant for the insertion of Polish *siostrzenica*. The same phenomenon is met in the case of *a nephew* and its Polish corresponding terms.


NP
Det
N
S
A
HUMAN
BEING
NP
V
NP
a sister
OF
Det
N
S
A
PARENT
NP
VP
Det
N
V
A
PARENT
MALE

an aunt
stryjenka (ciotka)



an uncle
stryjek (wujek)

$$\textit{a niece} \text{ corresponding to } \left\{\begin{matrix} \textit{bratanica} \\ \textit{siostrzenica} \end{matrix}\right\}$$

$$\textit{a nephew} \text{ corresponding to } \left\{\begin{matrix} \textit{bratanek} \\ \textit{siostrzeniec} \end{matrix}\right\}$$

a *nephew* = A SON OF A BROTHER = *bratanek*
A SON OF A SISTER = *siostrzeniec*
a niece* = A DAUGHTER OF A BROTHER = *bratanica
A DAUGHTER OF A SISTER = *siostrzenica*

where SON, BROTHER, DAUGHTER, SISTER are abbreviations for their underlying trees.

$$\textit{a cousin} \text{ corresponding to } \left\{\begin{matrix} \textit{kuzyn} \\ \\ \textit{kuzynka} \end{matrix}\right\} \text{ or } \left\{\begin{matrix} \textit{brat cioteczny} \\ \textit{brat stryjeczny} \\ \textit{brat wujeczny}^{5} \\ \textit{siostra cioteczna} \\ \textit{siostra stryjeczna} \\ \textit{siostra wujeczna} \end{matrix}\right\}$$

Some Polish speakers make the distinction only between MALE and FEMALE cousin relationships. Some other speakers of Polish distinguish four and even six terms. This is characteristic especially of the Eastern area of Poland. *A cousin* can be attached to eight different trees exhibiting different semantic representations:

A SON OF A SISTER OF A MALE PARENT=*brat stryjeczny*
A SON OF A SISTER OF A FEMALE PARENT=*brat cioteczny*
A SON OF A BROTHER OF A MALE PARENT=*brat stryjeczny*
a cousin=A

---

[5] *brat wujeczny* and *siostra wujeczna* are regarded by the present author as substandard.

SON OF A BROTHER OF A FEMALE PARENT=*brat cioteczny* or *brat wujeczny*

A DAUGHTER OF A SISTER OF A MALE PARENT=*siostra stryjeczna*

A DAUGHTER OF A SISTER OF A FEMALE PARENT=*siostra cioteczna*

a cousin=A DAUGHTER OF A BROTHER OF A MALE PARENT=*siostra stryjeczna*

A DAUGHTER OF A BROTHER OF A FEMALE PARENT=*siostra wujeczna* or *cioteczna*

3. CONCLUDING REMARKS

3.1. The polycategorial attachment principle combined with the concept of semantically atomic expressions has been found to be an appropriate and useful theory for the analysis of lexicon and for contrastive analysis. The theory enables the establishing of an underyling semantic structure of lexical items and provides an excellent tool for the establishing of semantic similarities and differences between corresponding lexical items in two or more languages.

3.2. The analysis of kinship terms in English and Polish showed a great number of similarities and relatively few differences. Some kinship terms of an unclear semantic status to the present author like *pociotek* have not been analyzed in this paper. Some kinship terms expressing remote relationship like *second* or *third cousin* have not been accounted for either. It is possible, however, to present solutions even for remote relationships by the application of the theory in this paper.

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SOME ERRORS IN THE USE OF RELATIVE PRONOUNS IN WRITTEN WORK OF ADVANCED POLISH LEARNERS OF ENGLISH – THE PROBLEM OF INTERFERENCE

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A. MATERIALS AND OBSERVATIONS

While investigating the character and occurrence of punctuation errors in written compositions of Polish students of English, I have collected a considerably large corpus of data which – apart from the problem then under consideration – proved illustrative in respect of a certain phenomenon that in itself seemed worth investigating: a class of errors in the choice of relative pronouns, which I found to be of both significant frequency and fairly systematic character. These errors involved faulty distribution of particular elements that constitute the series of English relative pronouns (i.e. *who*, *which* – plus the cognate forms, resulting from the case contrast; *what*, *that* and *zero*). An analysis of the data[1] allows for the following systematization:

I. *What* is used instead of *which* in non-restrictive sentence-modifying relative clauses, resulting in ungrammatical sentences like:

1. **The Japanese don't differentiate between /r/ and /l/, what makes their language different from English and Polish.* (Year I)

2. **Good writing should reflected the author's individual personality what he achieves having worked out his own characteristic style.* (Year II)

II. *What* is used instead of *which/that* in restrictive relative clauses, e.g.:

3. **We collect everything what seems to be useful at the moment.* (Year II)

III. *This what* or *that what* is used instead of *what*, resulting in ungrammatical utterances of the type:

---

[1] 76 Year I examination papers in English phonology, 44 précis pieces produced by Year I students as a part of annual examination in practical English, 29 free compositions written by Year II students, plus the data obtained from the experiment that will be discussed in detail further in this paper.

4. **Realisation* [of language] *is that what is strictly connected with our will.* (Year I)

Moreover, it was also observed that:

IV. The use of *which* instead of *who*, i.e. violating the /+Human/ v. /−Human/ contrast on the anteceding NP, was very sporadic (in the whole material investigated; only three such instances were recorded, two of which were corrected by the student himself before handing the work in), which makes it plausible to treat the resulting ungrammaticality as a 'mistake' rather than an 'error'.[2]

V. The *zero* form of the relative pronoun was used rather frequently and, in general, correctly.

The systematic occurrence of errors listed above under I - III, as well as characteristic syntatic constraints on their appearance, seemed to make a closer investigation worthwhile and promising in terms of the search for remedial procedures. Consequently, it will be the purpose of the present paper to look for their explanation, as well as for implications that might prove useful in the teaching process. For pragmatic reasons, the problem will be dealt with inside the framework of an informal contrastive analysis.

B. DISCUSSION

In Polish, the series of relative pronouns consists of the following elements: *kto, co, który, jaki* (plus all flexional variants, resulting from number, gender and case contrasts).[3] One seems justified in assuming that their distribution is governed by a set of rules which, when compared with corresponding rules that operate in English, could help to elucidate and explain the nature and reasons of occurrence of the errors listed above in Section A.

I.1. The rules of non-restrictive sentence modification in Polish require that the only relative pronoun chosen for the surface realisation of the sentence is the pronoun *co* (i.e. the lexical, translation equivalent of English *what*);

---

[2] In terms of the distinction introduced by S. P. Corder (1967).

[3] According to Szober's (1962:101) classification; the compounds with *-kolwiek*, *-bądź* and *tylko* are irrelevant for this discussion.

Having read the first draft of this paper Mrs. Ruta Nagucka has kindly drawn my attention to the distinction made by some linguists between *co* as a relative pronoun proper and *co* as a universal pronoun of neither relative nor interrogative character. This distinction, as Mrs. Nagucka has rightly suggested, could prove useful in explaining some aspects of the problem under consideration. However, in view of the analysis of relative clauses with generic NPs realised as universal pronouns (the type cruci[illegible]or the present discussion) the classification presented in Szober seems to me more helpful.

the corresponding rule for English requires the choice of *which*. Consequently, one might assume that the error exemplified in 1. and 2. is an obvious case of interlingual interference: both items are members of the same grammatical category, which ensures the adequate amount of similarity; moreover, lexical equivalence of *which* and *który* might prevent learners from using the former, in view of, e.g.:

5. *Przyszedł wcześnie, co bardzo mnie zdziwiło.*,

cf.

5a. **Przyszedł wcześnie, które bardzo mnie zdziwiło.*

Thus errors like in 1. and 2. might occur because of the same reasons for which there would be no faulty choices of relative pronouns in indirect questions, e.g.:

6. *He ought to know what he is going to say.*,

cf.

6a. *Nie wiem, co pani sobie pomyślała.*[4]

Moreover, it is interesting to notice that in the written performance of the same group of learners there are no instances of errors consisting in faulty choice of a relative pronoun in NP-modifying clauses. With NP-modifying restrictive clauses the choice between *który* and *co* is optional in Polish; gender, case and number contrasts are neutralized when the second of these two pronouns is chosen, cf.:

7. *...światło, co sączyło się z drugiego półpięterka,... raptownie zgasło.*

$$\begin{bmatrix} -\text{Human} \\ +\text{Neut.} \\ +\text{Sg.} \\ +\text{Nom.} \end{bmatrix} \begin{bmatrix} -\text{Human} \\ +\text{Neut.} \\ +\text{Sg.} \\ +\text{Nom.} \end{bmatrix}$$

7a ...*światło, które sączyło się z drugiego półpięterka...*

7b. ...*the light* $\left\{\begin{matrix} \textit{which} \\ \textit{that} \end{matrix}\right\}$ *was sifting from the second landing...*

but also

8. ... *rzeczywiście drżą mu wargi, jak u dziewczyny, co to się zaraz rozbeczy.*

$$\begin{bmatrix} +\text{Human} \\ +\text{Fem.} \\ +\text{Sg.} \\ +\text{Genit.} \end{bmatrix} \begin{bmatrix} -\text{Human} \\ +\text{Neut.} \\ +\text{Sg.} \\ +\text{Nom.} \end{bmatrix}$$

8a ... *rzeczywiście drżą mu wargi, jak u dziewczyny, która się zaraz rozbeczy.*

$$\begin{bmatrix} +\text{Human} \\ +\text{Fem.} \\ +\text{Sg.} \\ +\text{Genit.} \end{bmatrix} \begin{bmatrix} \pm\text{Human} \\ +\text{Fem.} \\ +\text{Sg.} \\ +\text{Nom.} \end{bmatrix}$$

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[4] Unless specified otherwise, all Polish examples come form M. Choromański, *W rzecz wstąpić* (Wyd. Pozn. 1973).

8b. *... indeed, his lips are trembling like those of a girl* $\begin{Bmatrix}\textit{that}\\ \textit{which}\end{Bmatrix}$ *is about to cry.*

Generation of structures like 8. does not seem to be adequately explained in terms of the theoretical accounts of the phenomenon of pronominalization with which I am familiar (cf., e.g. the rule of "Transfer of noun features to article" in Stockwell et al. (1973:212 - 213), which explains the informality of the above presentation.

In the production of sentences like 7b. or 8b. by Polish learners the obligatory distinction between *which* and *who* is occasionally violated (cf. Section A. IV). As before, an explanation might be looked for in lexical (translation) equivalence:

what /—Human/ *co* /—Human/
which /—Human/ *który* /±Human/
who /+Human/ – *kto* /+Human/

It is probable that the feature of Polish *który* /±Human/, the only case of discrepancy between English and Polish becomes transferred to its English translation equivalent; the interference might be additionally strengthened by the restriction[5] on the choice of the Polish equivalent of *who* in sentences like 8., cf.

8c. **...rzeczywiście drżą mu wargi, jak u dziewczyny, kto to się zaraz rozbeczy.*

Such a hypothesis would also explain lack of errors that would consist in using *who* to replace a /—Human/ NP, e.g. **The book who...* One must observe, however, that the correct distinction between *who* and *which* (in terms of pronominalization of /+Human/ and /—Human/ NPs) is maintained relatively early: the errors, sporadic already with junior students, disappear almost entirely in senior years.

Yet at this point of the present discussion I can find no plausible explanation as to why no instances of interference occur to produce ungrammatical sentences like

7c. **...the light what was sifting...*

8d. **...of a girl what is about to cry.*[6]

II.1. A closer analysis of errors consisting in choosing *what* instead of *which/that* in restrictive relative clauses shows that the area of their occurrence is very limited. Indeed, even with junior students, they can be attested only if the head NP (cf. the definition of relative clauses in Stockwell et al. (1973:421) is generic in nature and, moreover, realised as any of the universal (cf. Quirk et al. 1972:227) pronouns, e.g.:

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[5] The conditions for this restriction will be discussed in more detail further in this paper.

[6] In spite of the fact that relative clauses introduced by the general pronoun *co* (rather than by a specific relative pronoun) show a tendency to disappear from contemporary Polish, they still seem fairly frequent in informal language.

9. **A distinctive feature is something what allows us to distinguish the sounds and words*. (Year I)

10. **Everything what they needed to prolong their lives had to be done with their own hands*. (Year I)

11. **First we put down anything what comes to our mind*. (Year II, cf. also 3.)

Interestingly enough, the same faulty choice occurs after the universal pronoun *all* used in nominal function (i.e. as different from its regular function as a predeterminer; for a discussion, see Quirk et al. (**1972:218**), e.g.:

12. **A consonant is all what is not a vowel*. (Year I)

13. **Then we choose all what is really needed for our composition*. (Year II), *all* being used synonymously with *everything* (i. e. given the features /+Pro, —Human, ±Count., —Pl./).

On the other hand, no errors like those exemplified in 9 - 13 were attested with /+Human/ lexical elements (i.e. *one* and *body*) which enter into combination with the same series of determiners (i.e. *some-*, *every-*, *any-*, etc.) to produce universal or indefinite pronouns (for discussion, see Stockwell et al. (**1973:225 ff.**)), e.g.:

14. *Everybody who is going to write should develop his own style*. (Year II), and never

14a. **Everybody what...*

The error exemplified in 9 - 11 above is very persistent, despite the growing proportion of written assignments and their regular correction in senior years. My intuitive conviction in this respect was confirmed by the results of an experiment, carried out with Year I and V students. The students were asked to translate into English a Polish sentence (grammatically correct translation equivalent of 10 above); subsequent scrutiny of their performance can be summarized in the following table:

Year	No. of students	$\left\{\begin{matrix}\textit{all}\\\textit{every-thing}\end{matrix}\right\}$ *what*	$\left\{\begin{matrix}\textit{all}\\\textit{every-thing}\end{matrix}\right\}$ *that*	$\left\{\begin{matrix}\textit{all}\\\textit{every-thing}\end{matrix}\right\}$ *which*	*zero*
I	42	24 57.1%	3 7.1%	9 21.4%	6 14.2%
V	20	4 20%	10 50%	1 5%	5 25%

In spite of the limited scope of the experiment, the figures point to: 1. persistency of the error under investigation,

2. tendency to use the predeterminer *all* alternatively with the pronoun *everything*,[7]

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[7] In itself, obviously not considered an error; *all* can be used as an independent nominal (cf. Quirk et al. 1972: 141).

3. reasonably good command of the *zero* form structure.

Moreover, like in I.1 above, there seems to exist a strong influence of translation equivalence. The /−Human/ series in Polish, with the required choice of relative pronouns, is represented by:

$$\left\{\begin{array}{l} \textit{cokolwiek} \\ \text{(anything)} \\ \textit{coś} \\ \text{(something)} \\ \textit{nic} \\ \text{(nothing)} \\ \textit{wszystko} \\ \text{(everything)} \end{array}\right\} + \left\{\begin{array}{l} \textit{co} \\ \text{(what)} \\ {}^{*}\textit{które} \\ \text{(which/that)} \end{array}\right\}$$

Polish 'zaimki nieokreślone'[8] share with their English equivalents the following features:

1. they are /+Pro, +Count, −Pl./,
2. they have no antecedent,
3. they are always general (cf. Stockwell et al. (1973:225 ff.); Klemensiewicz (1963:73)).

With that amount of semantic and syntactic similarity, it seems to be only the lack of translation equivalence which can account for the tendency to make the wrong choice; it might be additionally encouraged by the restriction which in Polish prohibits the choice of the equivalent of the correct English form. This does not occur in case of the /+Human/ series:

$$\left\{\begin{array}{l} \textit{ktokolwiek} \\ \text{(anyone/body)} \\ \textit{ktoś} \\ \text{(someone/body)} \\ \textit{nikt} \\ \text{(none/nobody)} \\ \textit{każdy} \\ \text{(everyone/body)} \end{array}\right\} + \left\{\begin{array}{l} \textit{kto} \\ \text{(who)} \\ {}^{*}\textit{który} \\ \text{(which/that)} \end{array}\right\}$$

where the existence of translation equivalence encourages the correct choice, at the same time blocking the erroneous **anyone which*, etc. and *anyone that*, etc., unfrequent with /+Human/ generic pronominal antecedents.[9]

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[8] I.e., those which "wskazują na najrozmaitsze przedmioty lub ich właściwości, których jednak bliżej nie oznaczamy" (Szober 1962:99).

[9] An observation confirmed by native speakers. I was unable to find any formal discussion of this point.

Polish equivalents of the predeterminer *all* show the following features and constraints on the choice of relative pronouns:

każdy
(every)

$$\begin{bmatrix} -\text{Human} \\ -\text{Pl} \end{bmatrix} + \begin{Bmatrix} \textit{co} \\ \textit{który} \end{Bmatrix}$$

wszystek
(all)

$$\begin{bmatrix} +\text{Human} \\ +\text{Pl} \\ /-\text{Pl}?/ \end{bmatrix} + \begin{Bmatrix} {}^{*}\textit{kto} \\ \textit{co} \\ \textit{który} \end{Bmatrix}$$

wszystek
(all)

$$\begin{bmatrix} -\text{Human} \\ \pm\text{Pl} \end{bmatrix} + \begin{Bmatrix} \textit{co} \\ \textit{który} \end{Bmatrix}$$

None of them can function as an independent nominal; the case of generic /+Human, +Pl/ *wszyscy* modified by a restrictive relative clause seems to me best interpreted in terms of noun deletion, e.g.:

14b. *Wszyscy* (ludzie), *którzy mają zamiar pisać...*

Thus errors exemplified in sentences 12. and 13. above seem to result from semantic and syntactic identification of the universal pronoun *everything* and the predeterminer *all*; possibly again facilitated by the neutralization of this distinction in Polish translation equivalents.

III.1. The error of 'double pronoun', exemplified in 4., consists in inserting the pronominal antecedent which in English is obligatorily deleted in front of the relative *what*. In equivalent Polish constructions the antecedent is optionally present or absent in the surface structure, the former often serving as a stylistic device:

15. *Ja piszę to, co słyszę.* (emphasis)

16. *Uchwyciłam od razu to, co było najważniejsze.* (implied contrast).

The antecedent cannot be deleted if it is negated:

17. *...znowu gadałam nie to, co by należało.*,

cf.

17a. * *Znowu gadałam nie co by należało.*,

or if it occupies the sentence initial subject position, with cataphoric reference, cf.:

18. *To, co mi przy tym opowiadała, jak gdyby przeszkadzało jej chodzić.*

This point is discussed in detail e.g. in Klemensiewicz (1963:73), though without presenting any formal rules: classified as an 'indefinite, generalizing' pronoun, *co* is considered to form 'składnik wypowiedzenia tym znamienny, że w wypowiedzeniu nadrzędnym albo jest, albo da się uzupełnić odpowiedni zaimek wskazujący z funkcją odpowiednika. The corresponding rule for English requires that *what* "'contains' its antecedent (=*that which*)" (Quirk et al. 1972: 216); in structures equivalent (in respect of their stylistic function) to 15. and 16. the antecedent becomes overtly present in the surface structure, with *which* replacing *what*:

19. *To see that which in reality is terrifying ... this is to gain the spurs without risking the steed.* (*'The Illustrated London News'*, Jan. 1974)

The difficulty of the Polish learner in this particular respect can be explained in terms of the following juxtaposition:

$$\text{E.: } \begin{matrix} \textit{this} \\ \textit{that} \end{matrix} + \begin{Bmatrix} {}^{*}\textit{what} \\ \textit{which} \\ ?\textit{that} \end{Bmatrix} \qquad \text{P.: to} + \begin{Bmatrix} \textit{co} \\ {}^{*}\textit{które} \end{Bmatrix}$$

$$\begin{bmatrix} +\text{Pro} \\ -\text{Human} \\ -\text{Pl} \\ \pm\text{Count} \end{bmatrix} \qquad\qquad \begin{bmatrix} +\text{Pro} \\ -\text{Human} \\ -\text{Pl} \\ \pm\text{Count} \end{bmatrix}$$

The absence of errors consisting in faulty choice of the relative *what* in clauses modifying NPs which include *that/this* in the function of determiners found to be parallel to instances discussed in I. 1. (sentence modification, p. 272) and II. 1. (relative clauses modifying /+Human/ pronouns, p. 274): the optional choice in Polish between *co* and *który*, e.g.:

20. *Znów wziął nie ten, co bylo trzeba.*,

cf.

20a. *Znów wziął nie ten, który bylo trzeba.*[10]

Hence, errors in the choice of relative pronouns in cases like those discussed above are found to depend on the character of the modified (head) NP.

C. CONCLUSIONS

The first practical conclusion that arises from the above analysis is that investigating those areas where systematic errors are found to occur (cf. 1. - 4.) can be equally illustrative as investigating the areas where they do *not* occur (cf. 7c., 8d., 14a.). Although most of the errors exemplified earlier in this paper seem to point out to interlingual interference (*S, co* : *S, what*; *wszystko, co* : *everything /what*; *to, co* : *that/ what*), no fully plausible explanation can be offered as to the 'negative evidence', i.e., the cases where what potentially could result from interference, actually does not occur at all. Indeed, one could argue that interference (inside the particular problem presently under consideration) would operate more strongly in those cases in which the system of Polish does not offer option of choice, such that might allow for choosing an equivalent required by the corresponding rule in English (cf. relevant passages in I. 1. and II. 1. above). There is, however, no proof for such a hypothesis; moreover, to conclude about interlingual interference as the reason of errors like those discussed in this paper, one would have to prove their typical and unique character in the context of the two languages under consideration. And yet, e.g. Wyatt (1973: 183), in his report on errors in written English composition produced by his pupils in East Africa, attests as many as 5 (out of the total of 67 in the category which he calls 'Pronoun') cases of **All what* used instead of *All that*. This is obviously not enough to disprove anything, but enough to make one cautious.

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[10] Errors of the type discussed in III.1. occur systematically with adverbial (as different from relative) clauses, e.g.: **Articulatory phonetics deals with this how the sounds are produced by the speaker.* (Year I). Their discussion, however, exceeds the scope of this paper.

Both the 'positive' and the 'negative' evidence that I have collected can be conveniently summarized in the following diagram:

P.		E.		
Antecedent	Rel. pron.	Antecedent	Rel. pron.	Faulty choice of the relative *what*
S	*co*	S	*which*	+
wszystko, etc.	*co*	*everything*, etc.	*that* *which*	+
każdy, etc.	*kto* *co*	*everybody*, etc.	*that* *who*	–
to	*co*	*this/that*	*which*	+
N	*który* *co*	N	*that* *who* *which*	–

The diagram illustrates what is not likely to constitute a mere case of interlingual interference; in fact, the learners seem to create during the process of learning a separate system, different from — and in a way more consistent than — that of either English or Polish. While there seem to be no semantic or syntactic constraints on the use of *co* (cf. the discussion above), its English equivalent *what* is only chosen when its antecedent is /—N, —Human, —Pl/, i.e., when it shares the features of the pronoun. This rule, however, does not account for the restriction on the relative *what* (i.e. as different from the interrogative): that the relative *what* incorporates its antecedent, the /+Pro, +Det/ *that/this* (for discussion, see Quirk et al. 1972: 216).[11] It is this overgeneralization that seems to account for the erroneous use of *what* instead of other elative pronouns.

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[11] Works on English interrogative and relative pronouns do not distinguish adequately between the two categories in this particular respect; cf., e.g., the account in Lewandowska (1974:70 - 71). Any attempt to solve this problem would go well beyond the scope of the present discussion.

What was said above seems to add to numerous arguments against contrastive analysis (and the resulting, grossly simplified, conviction that differences cause errors while similarities do not) as a means of language errors prediction. 'If error was just a case of transfer from the mother tongue and if it always happened, prediction would be straightforward. As it is, we are bound to take learners' errors into account, and if we have to do it anyway, it seems more sensible to make errors the starting-point for contrastive analysis and not just the way of verifying hypothetical predictions.' (Wilkins 1972 : 202) While a comparison of learners' native and foreign language cannot serve as a basis for making their behaviour predictable, it can account for this behaviour (in Nemser's terms, the so called 'weak claim of the contrastive approach', cf. Nemser 1969).

The suggested consecutive steps of such a pedagogically-oriented investigation would be: error analysis→contrastive analysis→prediction and/or remedial procedures.

D. PEDAGOGICAL IMPLICATIONS

It seems that a pedagogical grammar of English, written in order to satisfy the needs of Polish learners, should in some way account for the '*what*-error', in view of its systematicality and frequency in their (written) performance. As the error will not be explained in terms of interlingual interference alone, it seems doubtful whether exercises of purely contrastive nature could successfully help to solve the problem. However, the awareness of the existence of differing restrictions on the choice of the relative *what/co* in English and Polish might provide some insights in respect of teaching: it seems, for instance, that learners sould profit from exercises calling for conscious substitution of *that/this+which* with *what*. Because interference, resulting from the possibility of optional surface realization of /+Pro/ antecedent of *co* in Polish (cf. 15., 16., 17.), might hinder internalization of this rule, the substitution exercises might be reinforced by practising translation of such sentences from Polish into English.

It seems doubtful, however, whether error analysis, followed by a contrastive analysis, can provide the teacher with ready classroom techniques. This does not mean to say that there is no significance in both error and contrastive analyses. Although learners' errors cannot be always ascribed to the differences between L_1 and L_2, even in those cases in which they do not prove to result from interference, they will reveal the areas of erroneous generalization. Thus all of them will be finally described from the point of view of contrast — either between L_1 and L_2 or, inside L_2, between the rules of L_2 and those of the learners' approximative system (cf. Wilkins 1973:205). Moreover, such an analysis will remain predictive, not in terms of pure theory but in the sense that the learners' behaviour, attested in the past, will be most probably repeated in the future.

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REVIEW

Proceedings of the third congress of the Association Internationale de Linguistique Appliquée Copenhagen 1972. Vol. I: *Applied contrastive linguistics* ed. by Gerhard Nickel. Pp. 307. Heidelberg: Julius Groos Publishers, 1974. Reviewed by Wolfgang Kühlwein, University of Trier.

0. The fact that one out of three volumes of the proceedings of the 3rd AILA Congress is entirely devoted to Contrastive Linguistics (CL) is a striking proof of the growing importance of this discipline within the entire range of applied linguistic fields. The two companion volumes are *Applied sociolinguistics*, ed. by A. Verdoot and *Applied linguistics: problems and solutions*, ed. by J. Qvistgaard, H. Schwarz, and H. Spang-Hanssen. Necessarily this tripartition contains many intersections and demonstrates most clearly that we are perhaps more remote than ever from a systematic structure of the field of Applied Linguistics. It is true, an applied discipline cannot be defined according to object or methods of its research but only according to the goals of its research; in this respect the task of organizing e.g. an applied linguistic congress proves to be much more difficult than that of a theoretical linguistic congress; nevertheless the organizers of the 4th AILA Congress which is going to take place at Stuttgart/FRG in 1975 will be well-advised at least to attempt some kind of structure of the goals of applied linguistics to find an encompassing framework, in order to prevent the congress from ending up in a mixed bag of fairly heterogeneous small areas of research — often without any significant interrelationship among each other — and of isolated contributions (which, admittedly, are often very valuable *per se*).

The editor of the volume on CL is well aware of the fact that heterogeneity does not only characterize the present state of Applied Linguistics as a whole but also his specific field, Contrastive Linguistics (CL). It is presumably this lack of a coherent structure of present CL which induced the editor to choose the noncommittal alphabetic order according to the names of the authors as his guiding principle for the presentation of the twenty-five contributions which make up this volume. According to their principal goals they can be allotted to five fields of interest:

(1) basic problems of theoretical and applied CL
(2) reports on current projects
(3) specific studies in theoretical and applied CL
(4) didactic strategies as based on CL
(5) error analysis and its relationship to CL.

This list shows that the editor succeeded in taking into consideration all major and controversial areas of present-day CL. Though the respective section of the congress was devoted to *applied* CL several papers convey useful insights into *theoretical* CL as well.

In conclusion of these introductory remarks the astonishingly high amount of typing-errors should be criticized; it is often hard to decide whether they stem from the authors' manuscripts or from too much carelessness or pressure of time in the technical process of editing.

1. A contrastive analysis can be carried out on the basis of any linguistic theory – presupposed the descriptions of the two (or more) respective languages are comparable, i.e. are established in terms of the same theory. Nevertheless the problem as to the theoretical basis of contrastive analysis was a major issue of various contributions. In weighing the pros and cons of contrastive analysis S. Dardjowidjojo criticizes not only the surface structure oriented structural taxonomic contrastive analyses but also the generative approaches for their lack of a clear distinction between deep and surface structure ('How deep is deep structure?'), for the vague location of universals, and for the problems concerning their application in foreign language teaching: creating a "rich linguistic environment" (as a consequence of a mentalist theory of language acquisition) will certainly facilitate the first five years of the acquisition of one's first language, but "the most crucial problem for us (as second language teachers) is how to shorten these five years or so into a few hundred hours and to present the materials in the most condensed and comprehensive way in an unrealistic classroom situation..." (57).

Another basic problem of CL was raised by Th. Ebneter - equivalence. The author proposes to widen the scope of contrastive linguistic parameters. At present they consist of the all-or-none opposition 'similar vs. different': equivalence depends on the question whether underlying simple sentences in the languages under comparison match each other or not, or it depends on the surface structure oriented postulates concerning presence vs. absence of rules in contrasted languages, or a tertium comparationis in terms of identical meaning is postulated. The skilled application of procedures derived from set theory on the basis of distinctive feature analysis could well contribute towards introducing the notion of gradience into contrastive linguistic description by applying partial similarity as a third parameter, thus covering the relationships of inclusion, equipollence, surjection and bijection in a highly economic way.

Within the realm of phonology K. J. Kohler suggests to give more emphasis to its syntagmatic dimension in Contrastive Sentence Phonology.

A further most basic enlargement of CL was demanded by R. J. Di Pietro in 'Contrastive analysis: demise or new life?': sociocultural variables should be taken into account. Like general linguistics most research in CL (both theoretical and applied) has concentrated on the syntactic part of the semiotic functions of language, and, at best on its semantic side by merely investigating the purely linguistic structures (from sound to sentence) and their relations to extra-linguistic correlates. Aspects pertaining to the user of language, to speaker and hearer were banned from the traditional competence-oriented generative study of language. The limitations of linguistics, if it is defined so narrowly, become especially obvious in CL. It is true, generative CL has solved the problem of treating semantics, syntax, and phonology as components of *one* integral model, thus doing away with the one-way road from phonology via morphology to syntax of the structural-taxonomic view on language, where these components of language had rather been regarded as self-contained levels. Thus traditional generative CL enabled the linguist to account for syntactic structures in language A whose function was carried by e.g. lexicological or phonological structures in language B. If, however, equivalent linguistic structures bear different meanings on behalf of differing sociocultural contexts, traditional generative CL failed. The reviewer would even advance one step further than Di Pietro: we must not only develop a contrastive sociolinguistics (e.g. in order to facilitate the process of foreign language learning by e.g. pointing out to sociolectal German structures like 'das Kind, von dem ich den Vater kenne' or 'er war am Schlafen' when teaching French 'l'enfant dont je connais le père' respectively English 'he was sleeping') but also a contrastive pragmalinguistics – and both disciplines have to set the framework for what is presently done in CL. Both contrastive pragmalinguistics and contrastive sociolinguistics have to come first! The same consequence poses itself when going through R. Zimmermann's quite randomly chosen German-English contrastive by-products of his reception of Searle.

An interdisciplinary prerequisite which is of equal importance for a contrastive analysis that claims to be applicable for language teaching is stated by T. Slama-Cazacu: it is necessary

> "to carry out not only (i) the usual contrastive linguistic study (consisting in establishing, *in abstracto*, the similarities and differences between the two systems) but also to undertake (II) a *psycholinguistic contrastive study*, since in research concerned with the learning of language and not with linguistic typology as such, there is a very concrete factor which the researcher cannot bypass and which is in this study-situation: the two systems — *BL* and *TL* — meet *in the learner*;". (236f.).

2. In her empirical research, which was carried out along these lines T. Slama-Cazacu could produce evidence for one of the most central and most crucial problems of foreign language learning; most psycholinguistic arguments which relate to language acquisition are derived from observations of *first* language acquisition; e.g. there is a fairly wide agreement concerning the systematicity (due to 'language regularization') of the initial stages of first language acquisition ('approximative systems' à la W. Nemser and T. Slama-Cazacu, 'compromise systems' à la R. Filipović, 'Interrims grammatiken' à la W. Kühlwein), but the respective evidence for the psychology of second language learning is still rather limited. T. Slama-Cazacu observed native speakers of 22 different mother languages when they learnt Romanian as a target language — and noticed the same errors in an investigation of more than 600 children from 2 - 7 years who acquired Romanian as their mother tongue. The far-reaching consequence which we can draw from this observation for AL and the teaching of a foreign language is that the 'approximative systems' as postulated above, obviously do exist psychologically and can be described linguistically because they are systematically structured; if, however, we can describe them linguistically we can (and should) use these descriptions as implements in the didactics of foreign language teaching.

D. Chiţoran provides the reader with more general information concerning 'The Romanian English Contrastive analysis project'. He presents various theses of general interest which had been written within the framework of the Romanian Project — among others e.g. one of the few existing contrastive lexicological theses, which is likely to incite similar research in other contrastive projects as well. As for the particular linguistic theory which should serve as a basis for contrastive analyses Chiţoran is absolutely undogmatic; each researcher may choose the theory which suits his purposes best. This problem-oriented selection of theories may be convenient for the solving of particular problems in language teaching, but if one of the aims of the project is the achievement of a general contrastive English-Romanian grammar, it will be very hard to incorporate findings which are based on very different theories of language.

In "Testing the results of contrastive analysis" R. Filipović elaborates one feature of the Serbo-Croatian—English Contrastive Project, which it shares with the Romanian-English project: the complementary view of CL and error analysis. He convincingly demonstrates how the results of CL are checked by the findings of error analysis.

3. The reports on specific studies, some of which are carried out within some of the larger current contrastive projects are almost exclusively devoted to syntactic problems — E. Dinsen's study on "L'acquisition de la prononciation du français par les Danois" being the major exception; Dinsen uses a surface-oriented approach, based on articulatory criteria, and checks CL by error analysis both at the segmental and the suprasegmental level.

The diversity of linguistic theories underlying these various syntactic investigations demonstrates most clearly, that there is no specific contrastive linguistic theory, and that CL, actually, is not explanatory but merely collects facts. There is surface-oriented structural research in P. P. Mrazovic's "Konfrontative Analyse der Wortstellung Deutsch-Serbokroatisch". In "The actualization of the Noun Phrase in Hungarian and Serbo-Croatian" M. Mikes, L. Dezsö and G. Vukovic set out from a distinctive feature matrix, containing the features 'identified', 'qualified' or 'quantified', add the theme-rheme distinction and ask how the languages which they contrast, realize this matrix. There is also the equally surface-oriented approach, underlying N. D. Liem's "Clauses and cases in English and French in contrast", who attempts, however, a combination with Fillmore's theory of Case Grammar beyond the mere tagmemic comparison of clause types. It is also Case Grammar which M. C. Gatto takes as the basis for "Une étude contrastive du français et de l'espagnol et ses implications pour l'enseignement du français langue etrangère", whereas an older generative model (Katz — Postal 1964) is used by H. A. Bennett to describe "'Simple' Sentences in three languages: a Contrastive study using transformational generative grammar.' J. L. Wyat's investigation of "Nominalized clauses in English and contrastive linguistics" also rests on generative grammar; CL is used here, however, mainly for the purpose of elucidating particular structural features of the L_1 (English) more clearly. V. Mach and S. Machová apply a type of dependency grammar when they set out from the process of nominalization and ask for its functions in English and Czech. In attempting a 'Kontrastive Analyse der Negation im Deutschen und im Französischen' J. Lerot had to cope with the most difficult problem of drawing contrastive conclusions from two descriptions which rest on very different linguistic theories: G. Stickel's transformational treatment of negation in German and D. Gaatone's more traditional investigation of negation in French. These obstacles led to the expected conclusion „daß eine kontrastive Analyse nicht nur zwei nach derselben Methode vorgenommene Analysen des zu behandelnden Themas voraussetzt, sondern auch eine umfassendere Theorie und sogar eine ganze Grammatik, denn eine ziemlich leicht abgrenzbare Erscheinung wie die Negation spiegelt sich auf allen Sprachebenen..." (158). A. Fülei-Szanto's 'Kontrastive Beschreibung der deontischen Modalität im englischen und spanischen Sprachsystem' cannot be strictly allocated to one of the current linguistic theories. The author sets out from a set of logically given parameters and asks how this system is realized by the contrasted languages. M. O. Tomić discusses scope features in „Unmarked determiners in English, Macedonian and Serbo-Croatian". He does not attempt to solve his problem, as might be expected, on the grounds of formal logics, because „the semantics of formal logics differs radically from the semantics of modern linguistics: whereas logics starts from the individuum and on its basis constructs complete or partial sets with the aid of existential and universal quantifiers, linguistics should choose as primitives the sets and specify them in terms of the participation of their members into given states or actions". (253).

4. A variety of method, as wide as the one which is indicated by the specific research projects underlies the didactic strategies. The full range of traditional, structural and pragmatic procedures is given.

W. Boeddinghaus compares Afrikaans to German. As his presentation is exclusively devoted to the comparison of cognates, the title of his paper, „Lehrstrategie im Unterricht nach verwandter Sprachen" certainly is too presumptive. To be sure he is right in emphasizing listening-comprehension as the first teaching goal in the case of closely related languages. His basic idea, however, „durch das extensive Verstehen von vorbereitetem Satzmaterial so weit wie möglich in die fremde Sprache einzudringen" (30) is certainly not new, and his strategy of setting out from those structures which have the highest degree of similarity in both languages, and gradually going on to less and less similar structures stand in striking contrast to L. Zabrocki's (1970) results of well-based empirical research.

In "The contribution of contrastive linguistics to the preparation of language-teaching materials" W. R. Lee criticizes CL for its putting too much weight on the prediction of errors from mere L_1/L_2-contrasts and for its orientation towards adult speech, and implicitly acknowledges the importance of 'approximative systems' (s. a.). The course design, however, which he then advocates, is astonishingly traditional: (1) choice of structural items to be taught, (2) embodiment of these items in actions, activities, etc., where CL can help to decide which items should be omitted for the time being, and how the items which are to be included, shall be sequenced and spaced out.

In making "Some remarks on the formal properties of contrastive pedagogical grammars" W. Marton sets out from largely similar ideas, arrives at an altogether different conclusion, however, as regards the design of courses. Recognizing the well-known psycholinguistic shortcomings of a pedagogical grammar as based on the traditional versions of TG he would rather base course designing on conceptual organization as it is involved in the encoding of a given content plan into the signs of a target language, and on the respective differences in conceptual organization and its lexical and syntactic realizing between L_1 and L_2. This position consequently leads him to a Contrastive Grammar which should be based on notions, to a procedure of "establishing certain fairly general semantic areas which are functional in the syntactic systems of the pairs of languages under comparison and in very explicitly showing how each language dissects these areas in a different way" (189). The didactic application of such a type of contrastive pedagogical grammar can well be achieved via a situational approach (which is not governed by the sequence of structural items but) by "a number of sociolinguistically specified functions of communicative acts, with each of these functions utilizing various typological structures" (192). No doubt, this suggestion is in line with most recent reasoning in theoretical pragmatically based linguistics, and its didactic application, as suggested here, seems well feasible. The major problem of this kind of contrastive grammar, however, rather lies on its theoretical side: how to arrive at the complete inventory of the notional primes, how to classify them, and how to account for the interlocking of verbal and non-verbal components of their realizations in different languages? Thus, the didactic implications of CL once again, lead us back to the key problems of its theory.

5. In the contributions where error analysis plays a major part its scope and relation to CL is the central problem. As most error analyses are based on materials from introductory or intermediate levels, foreign language teachers will certainly appreciate J. P. Menting's „Analyse de fautes dans l'enseignement du Français langue etrangère au niveau superieur aux Pays Bas", which is empirically well-founded.

J. P. Walmsley's comparison of "Cantonese-English: an essay in diagnostic linguistics" reveals how ill-defined the profile of error analysis has hitherto been: both as regards its interior structure and its borderline towards CL. He attemps to account for the errors made on the phonological level. Though this attempt largely rests on a structural basis, it becomes obvious fairly soon that this end can only be achieved by including morphosyntax: „It is obviously pointless to provide drills in phonology without first finding out whether a subject's problems do not originate in the graphological, morphological or lexical systems" (270f.). Just like the ultimate conclusion of J. P. Angelis' contribution on "Listening comprehension and error analysis", the consequence of this statement for error analysis is the systematic investigation of "transitional dialects" of the learner, which should be carried out by "longitudinal studies" (8 resp. 272). This, however, can only be achieved by defining error analysis as the superior frame, which encompasses — among other things, e.g. the errors which are due to transfer and interference among different stages of the learning process within the L_2 alone — CL. After some decades of often quite esoteric speculation of theoretical linguistics applied contrastive linguistics should not discard this consideration too rashly.

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